FOR POSTAGE RATES SEE FRONTISPIECE

"TripleX" — the safety glass

THE SPHERE, OCTOBER 17, 1942
With which is incorporated "BLACK & WHITE" 1/6

THE SPHERE

Vol. CLXXI No. 2230 WITH WHICH IS INCORPORATED THE GRAPHIC OCTOBER 17 1942

McVITIE & PRICE

Biscuits of Highest Quality

GREYS CIGARETTES *Just honest-to-goodness tobacco*

By Appointment

The salt of the earth—

Cerebos Salt

You'll enjoy a Bass

TRADE MARK

. . . when the time comes a new LAGONDA *will emerge and resume its rightful place in the front rank of the world's finest cars.*

Clear that Cold with VAPEX

BREATHE THE VAPOUR

V194

PADDY

10 YEARS OLD WHISKY

The Cork Distilleries Co. Ltd., Cork, Ireland.

ALL CLASSES OF INSURANCE TRANSACTED

CAR & GENERAL INSURANCE CORPORATION LTD.

83, PALL MALL, LONDON, S.W.1.

PRICE ONE SHILLING AND SIXPENCE

REGISTERED AS A NEWSPAPER FOR TRANSMISSION IN THE UNITED KINGDOM

Office : Commonwealth House, 1 New Oxford Street, London, W.C.1

DIEU ET MON DROIT

BY APPOINTMENT TO H.M. KING GEORGE VI

BOOTH'S DRY GIN

Definitely Superior!

MAXIMUM PRICES: 22/6 PER BOTTLE; HALF BOTTLE 11/9. (U.K. ONLY)

THE ONLY GIN THAT HOLDS THE BLUE SEAL OF THE INSTITUTE OF HYGIENE

THE

ROOTES GROUP

GAVE YOU THE

HUMBER SNIPE

SUNBEAM-TALBOT

HILLMAN MINX

and many other
fine Cars and Commercial Vehicles

With victory achieved, their principal objective will again be the creation of still finer Cars and Commercial Vehicles

THE ROOTES MANUFACTURING GROUP

Volume CLXXI No. 2230 The SPHERE, London, October 17, 1942

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

THE AIR FORCE CHIEF AND THE W.A.A.F. CORPORAL: SIR CHARLES PORTAL AND SIR LESLIE GOSSAGE INSPECT THE GIRLS OF THE BALLOON BARRAGE and are shown round "Ye Olde Log Cabin" by Corporal Janet

When Air Chief-Marshal Sir Charles Portal (Chief of the Air Staff) and Air Marshal Sir Leslie Gossage (A.O.C., Balloon Command) inspected the first balloon site in London to be taken over by the W.A.A.F., they were shown round the camp by a Corporal who, before she joined up, was an assistant in a florist's shop. After formally inspecting the site, Sir Charles spoke to all of the girls and then inspected their quarters, which they have named "Ye Olde Log Cabin." Sir Charles Portal plied Corporal Janet with questions about balloon operations, but she was able to render all the correct answers. Later Sir Leslie Gossage returned to the Corporal specially to congratulate her and to tell her that she had taught even the Chief of Staff a good deal that he did not know about balloon operations!

Postage—Inland, 2d.; Canada and Newfoundland, 1d.: Elsewhere Abroad, 1½d.

A WAR NEWSLETTER—No. 163

1, NEW OXFORD STREET, W.C.1.

Stalin on Allied Help.—

Stalin's answers to a newsman's questionnaire must have heartened Goebbels and perhaps somewhat chilled those sea-captains who drive through the infested seas to Archangel, not without hardship and danger. Stalin is hard-pressed, and his choice of words can easily be misinterpreted. Every ally he has is acutely aware of his burden, bitterly concerned to ease it. If the aid we have given him seems to him a trifle in the scale, opposed to his immense burden, that is all his words meant. It is clear that he has the latest date of greater and more active intervention in his mind, and relies on its punctual fulfilment. He knows we are working like niggers *to that date*. And one thing more. Stalin must realise—there was nothing in his words to contradict it—that the burden of the entire German military machine, air and land-borne, was laid upon him by *Hitler's*, not by our, will and decision. We in Britain would have been thankful all this summer if a part of it had been deflected to an invasion of Britain, over which we had air superiority, and in which we had a vast army spoiling for a fight less unequal than a "Dieppe." It is not in our power to force Hitler to make that deflection; if he had made it, we could have dealt with it good and proper. It is another thing to mass a vast army inside Hitler's Western Wall, and there whistle for his armies of the East. Stalin himself has found Hitler's defensive walls slow to crack. In the Battle of Britain, *we* looked in vain for strong shoulders to take the strain of a part of the burden of the *Luftwaffe*. I found the journalist's questionnaire somewhat mischievous and little helpful. Let us resist reading bitterness into our Ally's answers. To do that is to play Goebbels' game for him.

The Führer's Oratory.—

The Führer's general health continues to be good, but he does not improve as an orator. Nevertheless, his methods have in the past five years served well enough his purpose before an audience of robots cheering to order, and we have no good grounds for supposing that the appeal of his arguments on his audiences is losing power. Perhaps they are tired of the "historical review section" (Versailles and all that); they still enjoy his gutter personalities, applaud his threats and boasts, and enjoy (sour grapes, perhaps) his flings against "drunkards." It might well be (if you could imagine a future historian ignorant of all details of the Great War of 1939-4—) that an attempt to construct the character of Hitler from his war speeches would reach the conclusion that this was a great *temperance reformer*, a man so obsessed by his loathing for drinking as to have become a monomaniac on the subject. In the past two years, at any rate, he has run the word "drunkard" to death. That vice, it appears, is rampant among Allied statesmen, strategists and financiers, and in great measure accounts for the satisfactory course of the war from the Axis viewpoint. But he doesn't accuse Stalin, exceptionally, of drunkenness; perhaps because the course of the war is rather less satisfactory in Russia. Be that as it may, I venture in a generalisation about the war oratory of the contending statesmen. Although nearly all of it is tinged with propaganda (and tarred with it); although nearly every sentence is designed and hand-picked for a definite and precise effect upon a nation, or neutrals, or the enemy, much of it ranks very high as permanent literature; and most of that is contributed by Mr. Churchill. Nevertheless, I think posterity will be surprised and shocked to discover that, in a war which produced so much outstanding courage, nobility and dignity among the fighting men and ordinary citizens, so very large a share of the oratory of the leaders was devoted to heady boasts, cheap verbal scores and gutter-snipe personalities.

NEWS FROM MALTA, brought back by the Lieutenant-Governor, Sir Edward Jackson, who has just arrived here from the George Cross Island: Sir Edward and Lady Jackson are here seen at the Ministry of Information, where the Lieutenant-Governor stated that "there is colour, cheerfulness and friendliness everywhere in Malta in spite of all that has happened." The casualties from air raids have been amazingly light, considering the many thousands of tons of bombs dropped by the Germans and Italians. Sir Edward has been in Malta since 1937, in which year he went from Ceylon to act as Legal Secretary to the Government: he has been Lieutenant-Governor since 1940

A Great Queen and Her Servant.—

Thanks to the eye-dust of two reacting schools of royal biography—the deifying and the debunking—we know still all too little of our Royal House. To-day it has nothing whatever to conceal. Furthermore, whenever a sure hand withdraws the veil, the truth revealed is of positive benefit to our understanding of our dead sovereigns and to their reputations. No surer hand, no greater gentleman, no more faithful servant ever served the Crown than Sir Henry Ponsonby in a dynasty of Private Secretaries of outstanding virtues. Such confidential servants owe an immensely strict duty of reticence to those they serve so intimately. Are we to say that that reticence must never be relaxed? Myself, I am confident that, if posterity is to achieve a right judgment and a just historical perspective, the duty of disclosure after "lives in being"—and then a few more years—is as important as the duty of contemporary reticence. Sir Henry's time for reticence is over. His duty and right to humanise, and present with truth and realism, the Court and personality of Queen Victoria has now been discharged by his third son, who has produced a book as outstanding for its authority and justice as for its mellow charm and golden humour. Through its pages walk human beings, not lay figures in crowns and ribbons. You see the great Queen (in close alliance with her great Secretary), vital, robust, fussy, ferreting out faults and weakness and error in her Government, ceaselessly jealous for the welfare and greatness of her Empire, ever increasing in knowledge of her people and in experience of statecraft. You are not surprised that her Ministers would have welcomed a little less zeal. How about the nation, then and now? The Throne has lost political or constitutional power and constantly gained in popularity; the Government has gained in power and influence and lost some of our esteem. Are those of us who most cherish our monarchical institutions alone in thinking that the Throne has resigned too much and is well equipped to exert still a measure of wise constitutional influence no less than moral? Ministers come and go. The Throne remains, and stands outside party politics. Such is my own reaction to this enchanting and revealing book. I could quote from its pages for ever. But if ever there was a book to buy, a bedside book from its birth, it is Lord Ponsonby's *Henry Ponsonby*. Here is history and humanity, humour and truth, a shaft of light piercing the fog of gossip and half-truth; and the light that beats on the Throne shows it up to its advantage.

Tennyson.—

Tennyson was a great Victorian and a great poet. As a very eminent man in either category he has suffered eclipse. He has been debunked as a Victorian pundit in Lytton Strachey's general debunking of that era, and as a poet in Harold Nicolson's "superior" criticism. He died fifty years ago this month, and when he died, a great prophet was taken away from a generation which had enthroned him. "And did you once see Tennyson plain?" Yes, I did. At the age of six, I saw the bard in black cloak and sombrero crossing that little wooden bridge over the lane south of Farringford, which divided the gardens of his house—and the experience was a tremendous one. It is odd to find, by recent proof, that I can quote his poetry for half an hour at a stretch without many mistakes—all his lyrics, a mass of the *Idylls*, much of *In Memoriam*. We were educated that way. I quote him, and I am conscious often of mere prettiness and sentimentality and façade in the midst of much that is elevated and grand and lovely. I can quote as much of Shakespeare, including many "deplorable" lines, yet never with Shakespeare am I conscious of absurdity, or frailty, or of anything but splendour and genius. Why is it? Not, I think, from their different degree of genius; not, I am sure, in degree of technical skill. More likely in degree of humanity, in the presence and absence of a sense of humour, of *virility*. The seer was said to loathe publicity. At the age of six I craved leave, from what I saw, to doubt it. Tennyson was a great poet, he was a great technician, he had fine vision and exalted ideas and ideals. But in truth he lacked virility, and even as a politician he was a Tory wearing the dress of a polite Liberal. He was a great Victorian, too; but in the Victorian age there were security and leisure, two things we lack. It was easier to be great, as a citizen or as a poet, fifty years ago. But my children will lose much if they cannot quote Tennyson, even for ten minutes.

Life, Death and Accountancy.—

A small boy in West Sussex had a baddish road accident, breaking at least one limb. It happened at five o'clock in the evening. At ten o'clock a doctor was at last secured to attend to him. It was clear that he must go to hospital for examination. The doctor had no means or no power of arranging transportation. He suggested the W.V.S. might do it. *Next morning*, negotiations with W.V.S. were opened. The local branch, W.V.S., could move the child, under conditions, *if he were an evacuee*. He wasn't? Then nothing could be done without reference to H.Q. H.Q. was referred to. No, nothing could be done for the child until two certificates were assured: (1) From the doctor to certify medical inability to supply transport; (2) From somebody of a responsible sort to guarantee *to refund to the Vol. Car Pool the cost of petrol used for the trip*. Even then, the local W.V.S. car must use *private petrol coupons* for the trip, and therefore must secure a guarantee of a coupon return. *That* in the fourth year of war is the state of medical organisation to deal with the health and welfare of the civilian population in rural areas, not in a time of confusion, but in times of comparative immunity from dislocation! And it is enough to shock and disturb the least susceptible and imaginative.

Home Front: A.A.—

Anti-aircraft? Yes, obliquely. But I am writing of another, an older, A.A.—the Automobile Association, which has told its war history in a little booklet before me. The motorist's first-aid man, with his useful and compact box of tricks on wheels, for many years was a *deus ex machina* on the peaceful roads, a ministering angel to motorists in trouble. To-day he wears a tin hat and carries on his mission of service and guidance. He has been bombed out of several of his headquarters, with the loss of valuable records and the disorganisation of vital communications and routine programmes. Every such dislocation coincided with increased demands on his services for emergency traffic problems and control. He has had to mark out traffic routes in every blitzed city area in Britain; he was a vital link in the chain at Dunkirk; he is trustee of thousands of discarded cars in France and Britain; he has taken a lead in salvage, in reception of evacuees and refugees, he has given 2,000 replicas of himself to the Armed Forces, and twice as many to various branches of civil defence, whole or part time. He is still adviser in chief on all car and traffic problems. He has trained drivers for the Army, mitigated the austerity of petrol and rubber restriction wherever good cause could be shown in individual cases. He is still on the road, efficient, polite, helpful, ready. The rush hours and the emergency expedients in which he shone in 1940 will be on him again soon enough. *Experientia docet*. A.A. is A1.

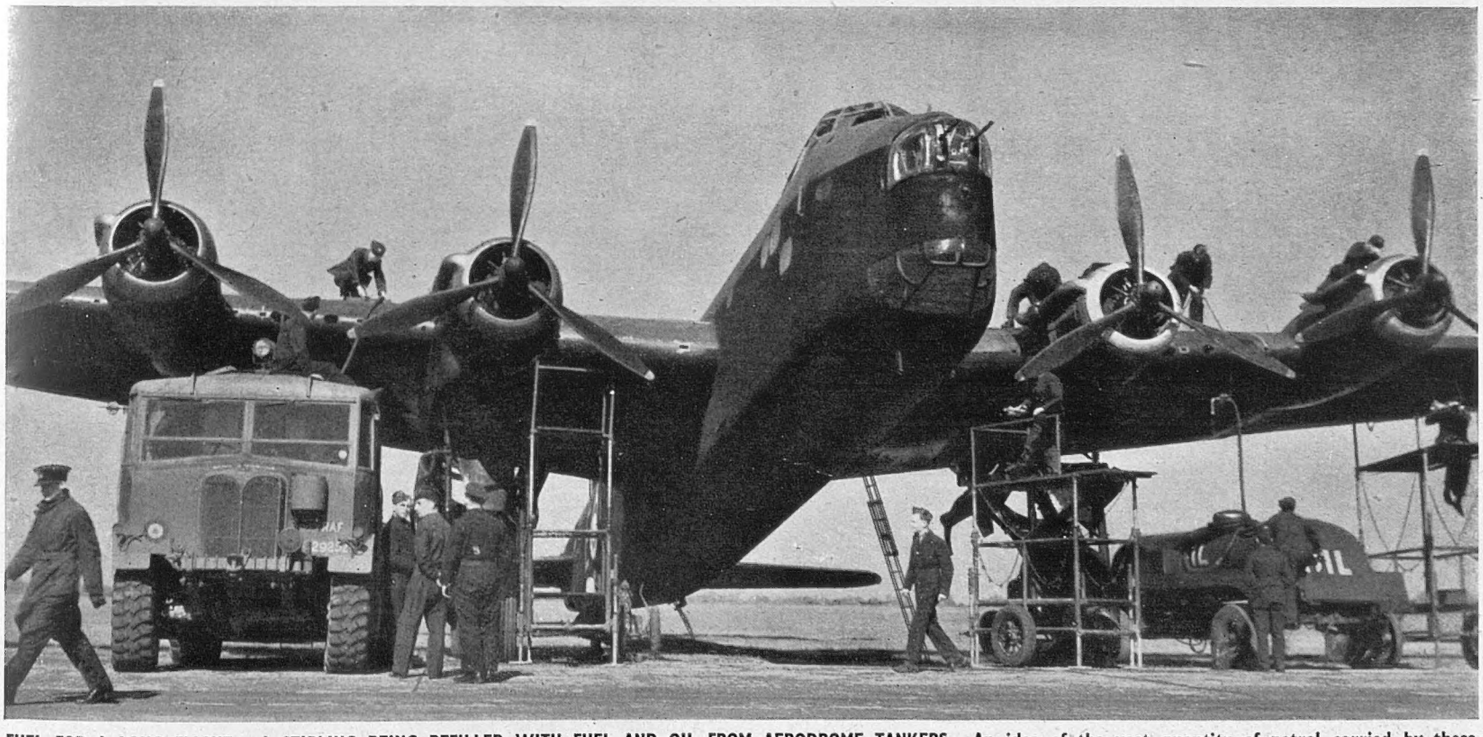
THE OLD STAGER

A FLIGHT OF OUR BIGGEST AND MOST FORMIDABLE BOMBERS : Fully loaded, these huge four-engined Stirlings weigh over 30 tons and carry more than 8 tons of bombs. They have a range of 2,000 miles ; their normal crew is seven, and their maximum speed is 300 m.p.h.

THE COST OF BOMBING

The Losses of Bomber Command During a Nine Months' Offensive—1,082 Aircraft

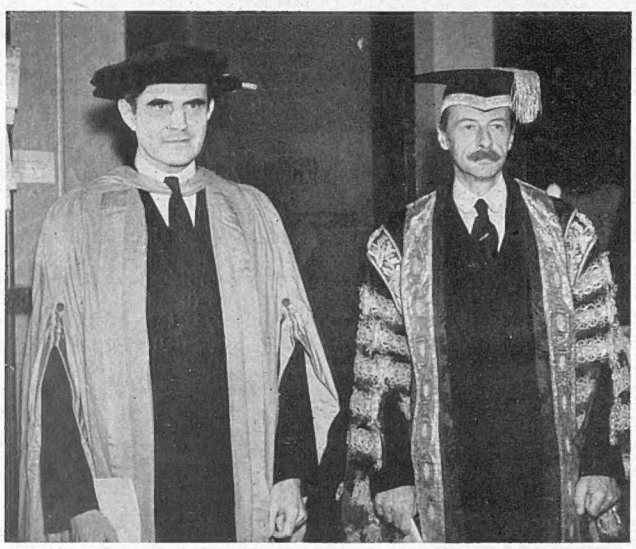
The Secretary for Air has now made known to the House of Commons the number of British bombers lost over Germany and Northern Europe during the nine months ending with September 30. During this period, Bomber Command carried out raids on 79 days and 140 nights : the losses incurred were 1,082 aircraft. The three big raids with 1,000 bombers apiece, and many in which between 300 and 500 aircraft took part, are included within this period. At a conservative estimate, at least 14,000 aircraft must have been engaged—so that the figure of 1,082 cannot be considered unduly high, especially in view of the non-stop, continuous nature of our bombing offensive. A figure of about £54,000,000 has been suggested as the cost of the lost aircraft ; but, here again, compared with the damage done to Germany's war effort, the cost cannot be considered excessive. The high quality of our big bombers (in allowing even badly damaged aircraft to return safely to their bases) has been a material factor in keeping our figure of losses down



FUEL FOR A LONG FLIGHT : A STIRLING BEING REFILLED WITH FUEL AND OIL FROM AERODROME TANKERS. An idea of the vast quantity of petrol carried by these giant aircraft may be gained from the fact that each of the four 1,600-h.p. Bristol Hercules engines consumes a gallon a minute at cruising speed, and considerably more during the long take-off. They are capable of carrying a very heavy load of bombs for very long distances

NEWS PICTURES OF THE WEEK

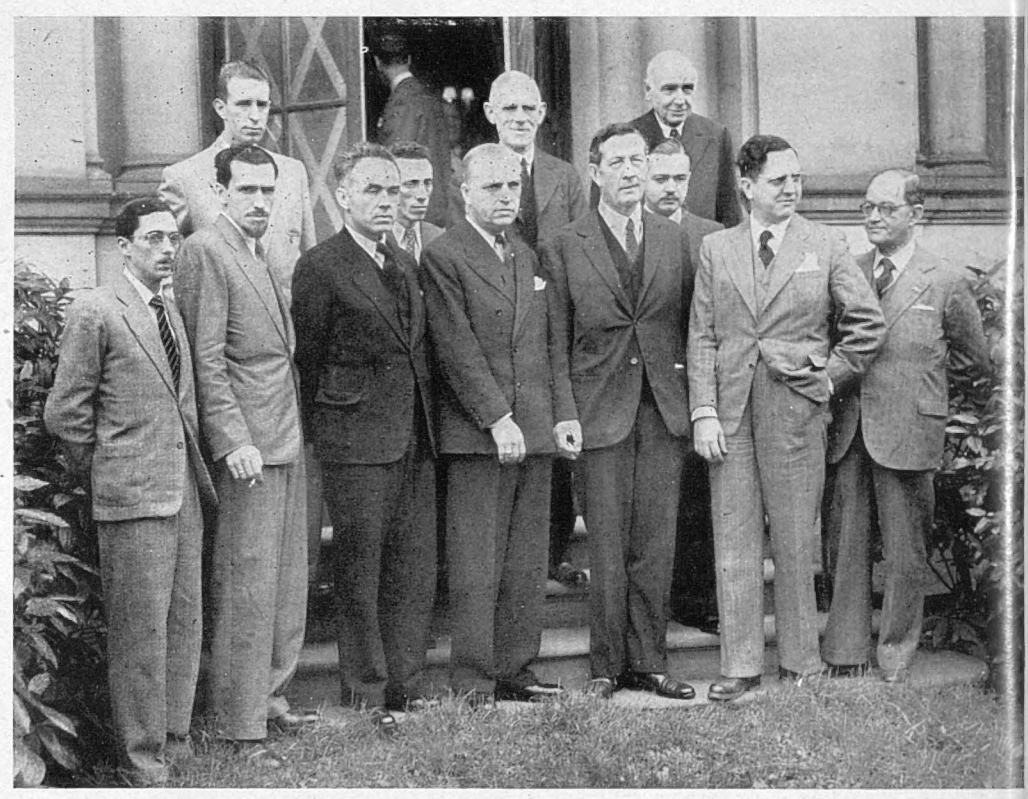
SIR ROBERT AND LADY CRAIGIE return to Britain from Tokyo, on the Egyptian liner "El Nil," after a ten-months' delay



THE AMERICAN AMBASSADOR IN LEEDS : Mr. John D. Winant, with the Duke of Devonshire (Chancellor of Leeds University), when the former received the Honorary Degree of Doctor of Law

MR. WENDELL WILLKIE IN BEIRUT, with General Catroux (of the Fighting French), on arrival at the Syrian airfield during his tour of the Middle and Far East

THE LINER "EL NIL" ARRIVES AT LIVERPOOL with the first of the 1,008 Britons repatriated from the Far East. A second ship docked at Liverpool on the following day. Ten months after Japan's entry into the war, the liners *El Nil* and *Narkunda* have arrived in Britain with 1,008 British and Allied nationals repatriated from the Far East in exchange for Jap civilians. The passage of these two vessels had been held up for a long time, owing to endless negotiations between the two Powers. The first Briton to set foot on English soil was Sir Robert Craigie, our Ambassador to Japan ; he was accompanied by Lady Craigie and by Sir Josiah Crosby, Minister to Siam. The *El Nil* brought 230 passengers, mainly officials ; on the *Narkunda* were 878 more. There are still 600 British subjects in Japan, and 200 more in Siam, apart from several thousands in China

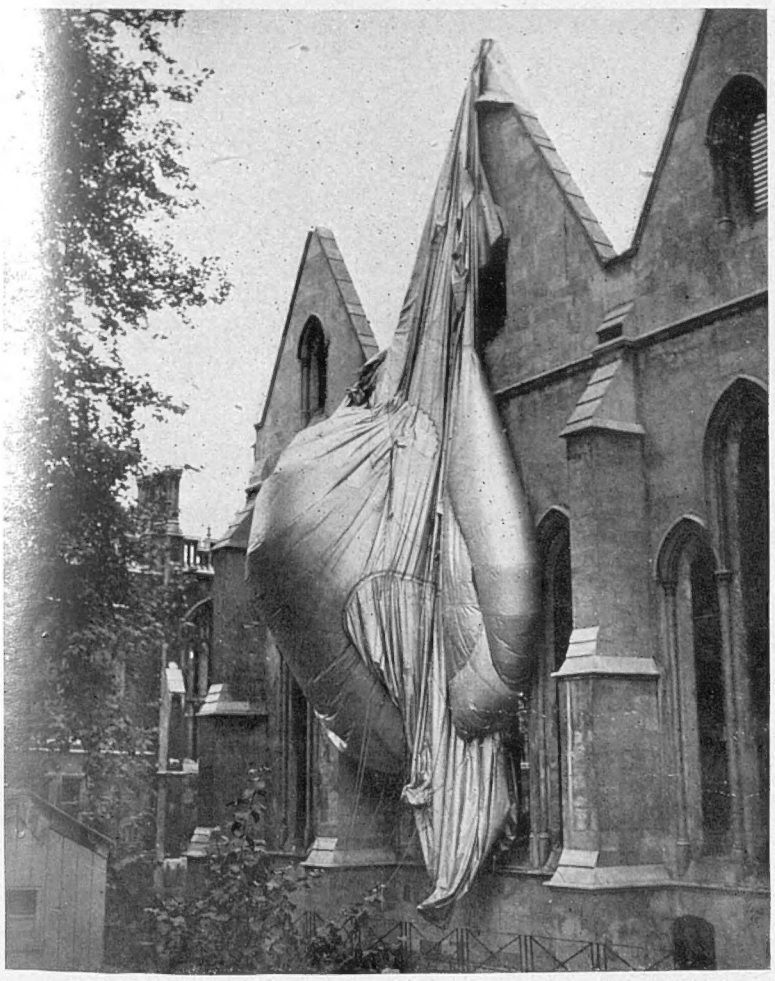


BRAZILIAN JOURNALISTS IN BRITAIN, as the guests of the British Council : An important delegation of newspaper editors representing Britain's newest ally, Brazil, have just arrived in this country. They will stay here for three weeks or a month, and will have an opportunity of seeing all aspects of life in wartime Britain. From left to right, above, are seen the following : (front row) Señor Joaquim Dias Menezes (Aviation journalist) ; Señor Mario Martins (Editor of *O Radical*) ; Señor Alfredo Pessoa (a director of the Press and Propaganda Department of the Brazilian Government) ; Señor Moniz de Aragao (Brazilian Ambassador) ; Sir Malcolm Robertson, M.P. (Chairman of the British Council) ; Señor Danton Jobim (Editor of *Diario Carioca*) ; Señor S. Miguel Arco E Flexa (*A Gazeta*). Standing at the back are : Señor Darcy Ribeiro (*Folha da Tarde*) ; Señor Joaquim Ferreira (*O Globo*) ; Lord Snell ; Señor Jorge Maia (Press Section of Foreign Office—behind Sir Malcolm Robertson)

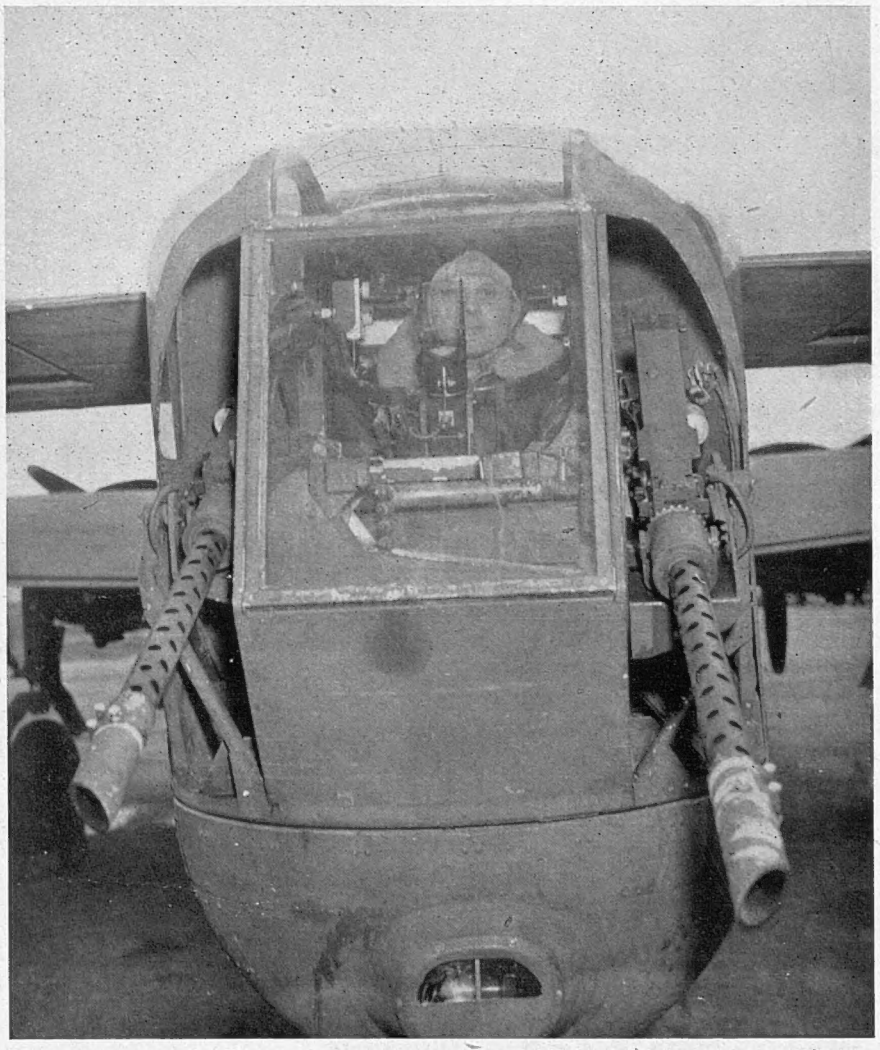
A.T.S. ON DUTY AT A LONDON MILITARY HEADQUARTERS—*On left*—Sergeant Pat Tully putting Private Audrey Clowry through a trade test for up-grading as a telephonist ; *on right*—a telephonist rests near her post whilst her comrades do their turn of duty. Each girl does a three-hour shift at the switch-board throughout the night

BRITAIN'S GLIDER REGIMENT TRAINS FOR ACTION : Two gliders, after being released from tow, demonstrate close-formation flying during a training flight. Such close flying would prove of great value during actual operations against the enemy

Special aerodromes throughout the country, the soldiers of Britain's Glider Regiment are training under the tutelage of the Royal Air Force, so that, when the time comes, they can take their places as pilots of front-line troop-carriers for the Airborne regiments. The trainees are all Army men, and they undergo a course in glider navigation and control : their gliders are known as Hotspurs. This picture was taken at a glider training unit in the Home Counties

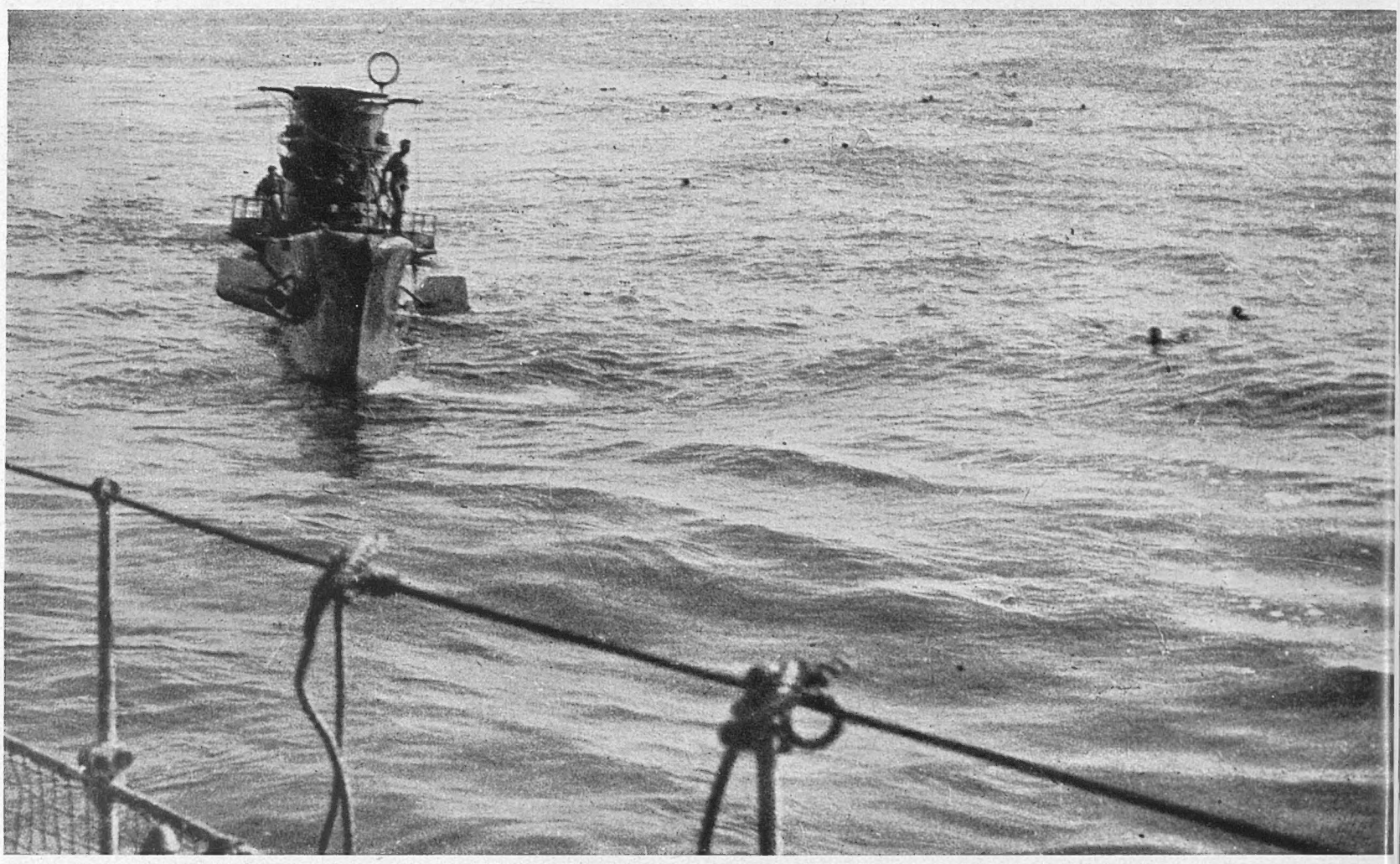


A BARRAGE BALLOON BREAKS LOOSE and lands on the Temple Church. This is how it came to rest on the ruins in the Temple (which was so savagely bombed by the Germans during the "blitz")

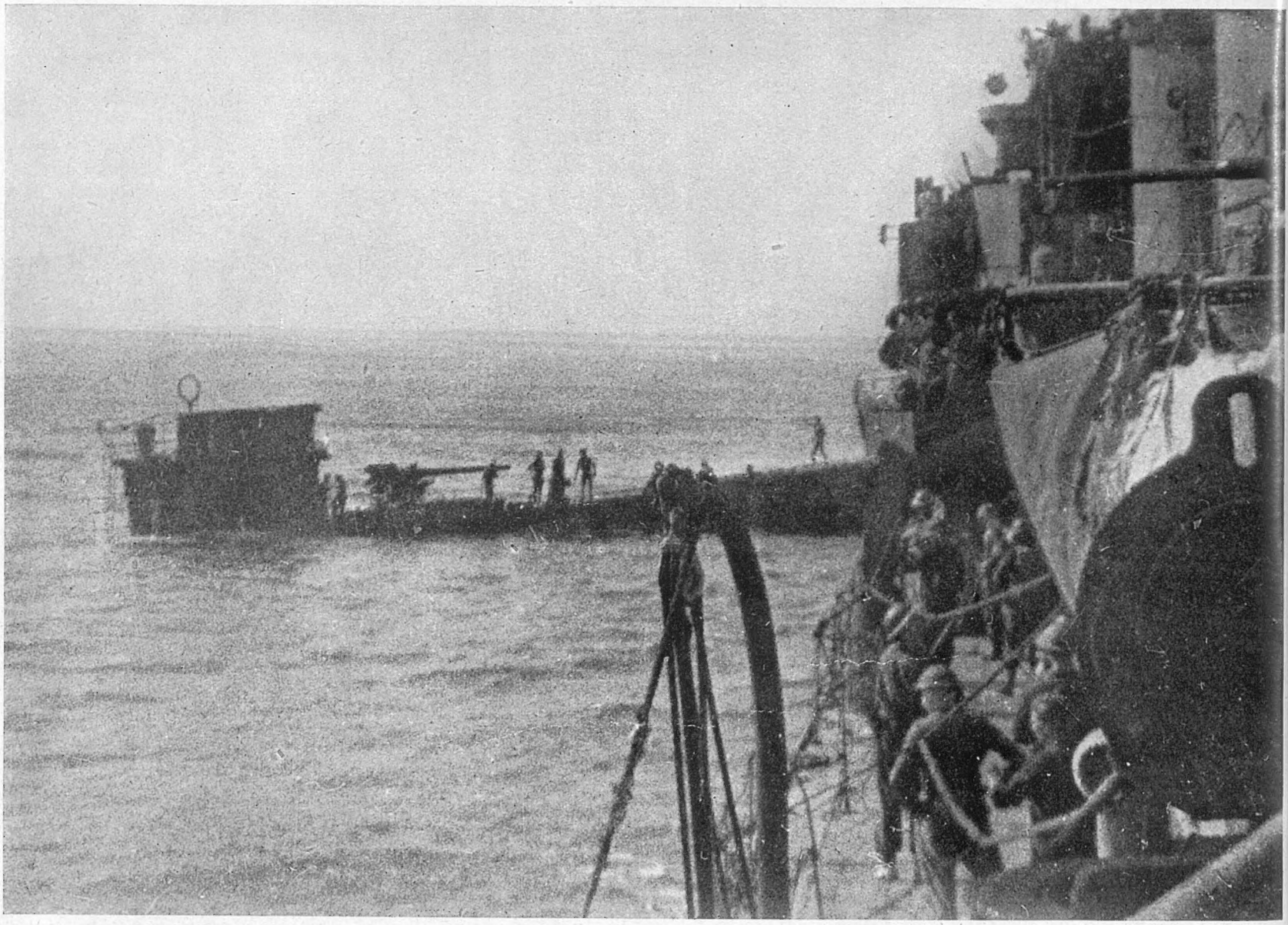


THE BIG AMERICAN BOMBERS GET FORTY-EIGHT GERMAN AIRCRAFT : Giant Liberator bombers took part in an operational raid in Europe for the first time when they joined Flying Fortresses in the most successful aerial assault on Friday, October 9. Lille was the target su cessfully bombed by the U.S. planes, and they shot down at least 48 German fighters *en route*, the fighter escort getting at least 5 more. Four of the 115 bombers failed to return. The picture above shows Sergeant Ernest Kish, of Duquesne, Pa., in the tail-turret of the Liberator *Peggie Ann*. His hands froze when he removed his gloves during the raid to repair his jammed gun ; but he got the gun back into action quick enough to get a good burst into a Nazi fighter

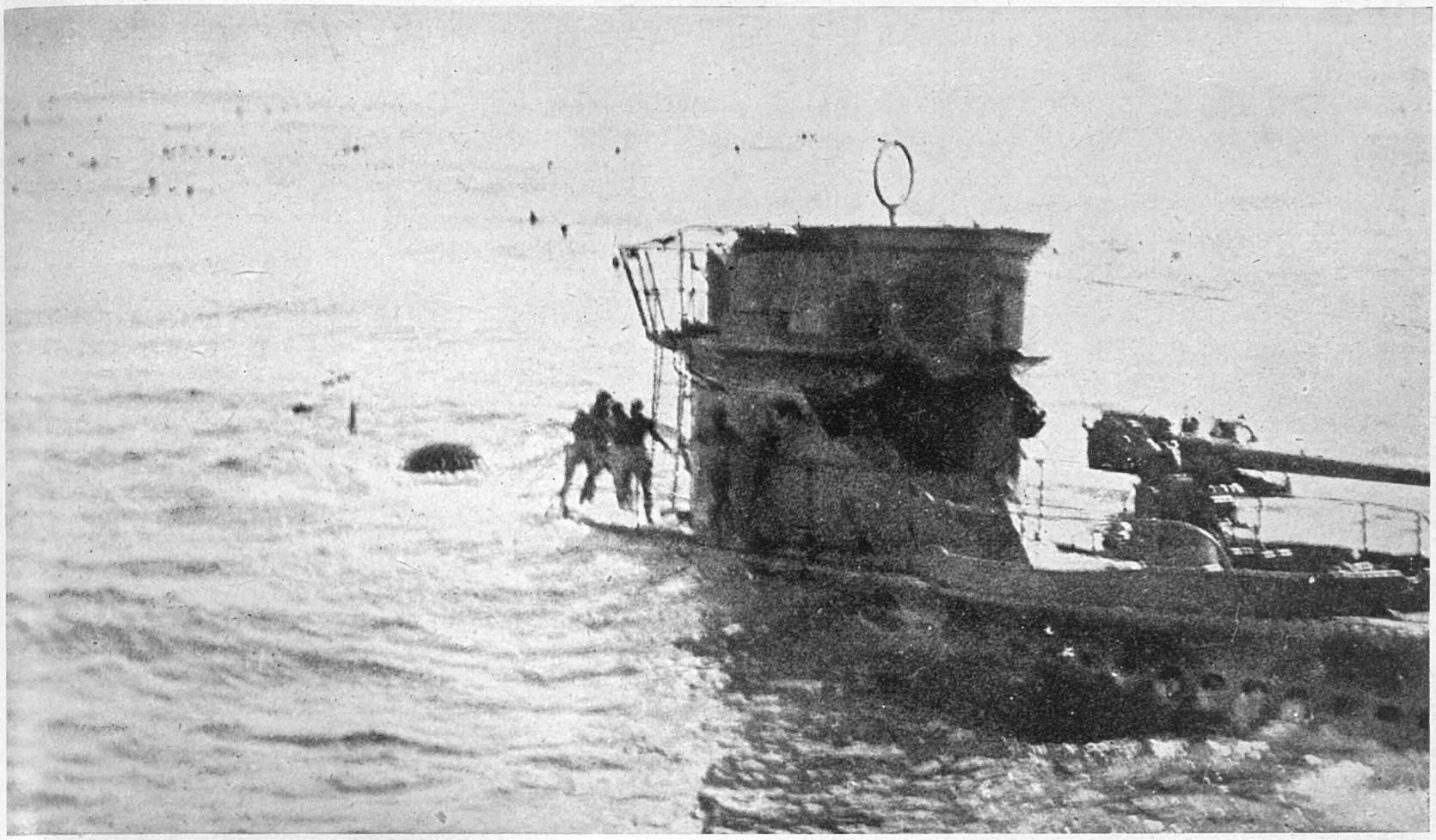
AN EXTRAORDINARY SERIES OF PICTURES OF THE RAMMING OF AN ITALIAN U-BOAT



THE BRITISH DESTROYER "ITHURIEL" DRAWS NEAR TO THE STRICKEN ITALIAN SUBMARINE "COBALTO" to take off those of the crew who remained aboard, and to pick up the seamen still floating on the sea. The U-boat's bow is riding high in the water, but her stern was submerged

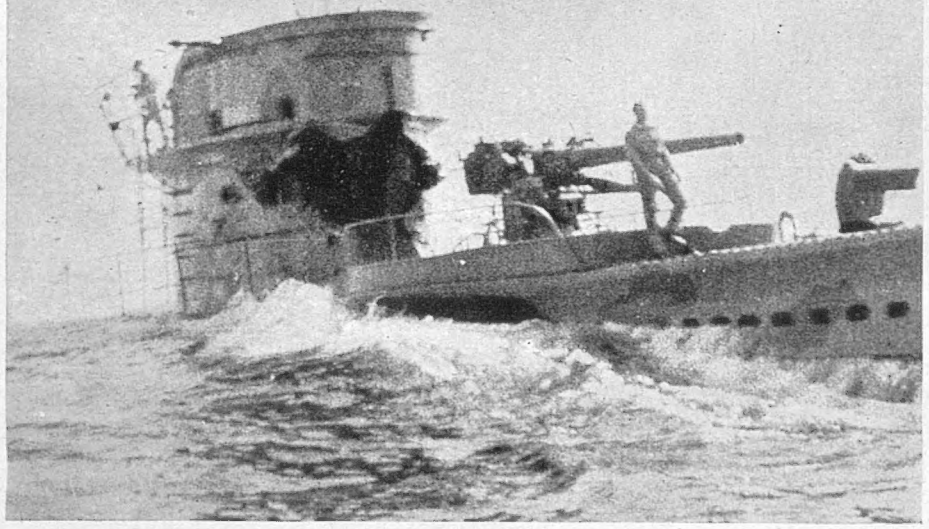


NEARER STILL THE "ITHURIEL" APPROACHES THE DOOMED U-BOAT: The stern is sinking lower in the water, there is a gaping hole in the conning-tower, and the last survivors are preparing to jump overboard as the destroyer closes with her victim. The sea was quite calm when the Italian vessel was rammed



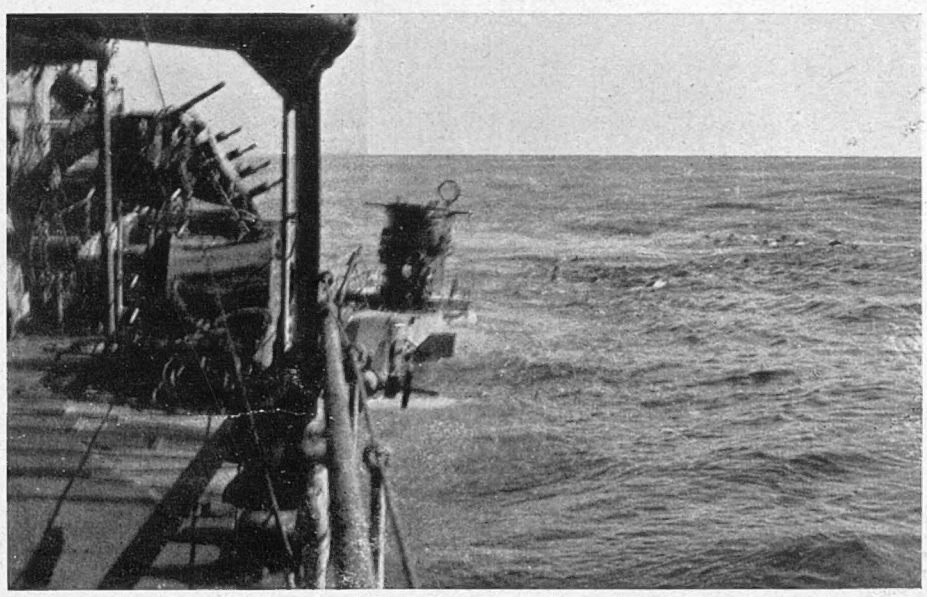
A CLOSE-UP OF THE RAMMED "COBALTO," with some of her crew scrambling for the bows, which still remained above the water. The great gaping hole in the vessel's superstructure is here clearly seen : the dark spots in the sea are the bobbing heads of the enemy seamen

The Royal Navy is striking terror into the hearts of U-boat crews in the Mediterranean and the Atlantic by its method of "knifing" enemy submarines in two. After forcing the U-boat to the surface by depth-charges, our destroyers exchange but a few shots before racing in for the kill. Often the U-boat is cut right in two by this means. The dramatic pictures reproduced on these pages were taken by a seaman aboard H.M.S. *Ithuriel* when that destroyer rammed and sank the Italian submarine *Cobalto* in the Mediterranean recently. The U-boat had been rash enough to attack one of our convoys bound for Malta when she was caught by *Ithuriel* : she was rammed and destroyed in the space of a few minutes. Some of the crew were saved by the destroyer



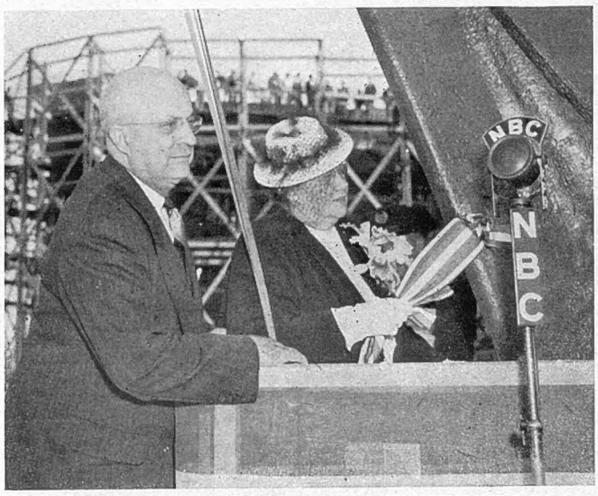
ANOTHER VIEW OF THE HOLE BLASTED IN THE U-BOAT'S CONNING-TOWER : This was caused by a direct hit from the "Ithuriel's" guns. Note the great size of the submarine's deck-gun and of the vessel's superstructure generally

THE "COBALTO" MAKES HER LAST DIVE to the bottom of the Mediterranean, just as the last man on board prepares to dive overboard. Later her bow went up still higher and she slid stern foremost beneath the waves

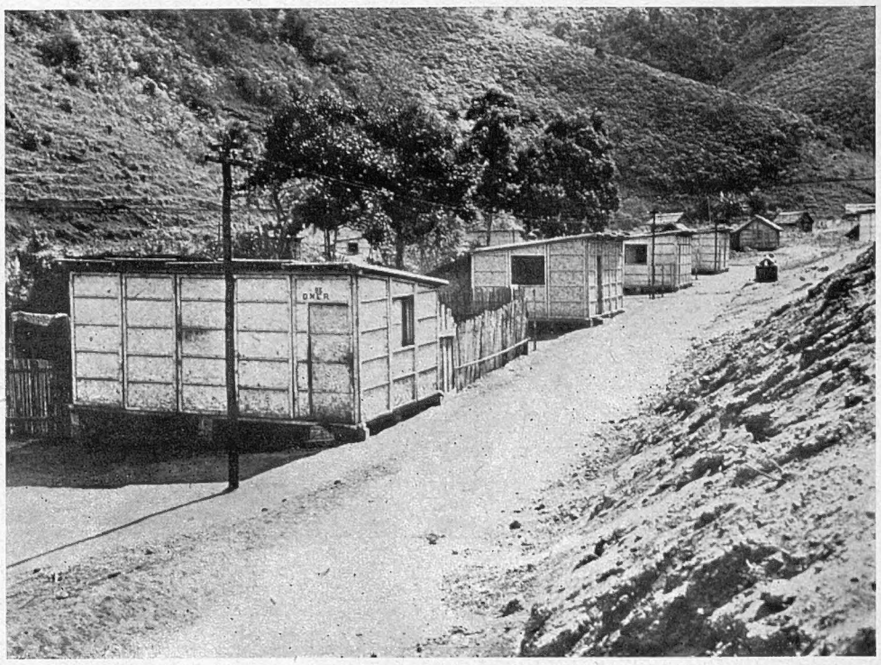


THE "COBALTO" BEING RAMMED AT THE MOMENT OF THE IMPACT : An amazing picture taken by a seaman at the very second that the "Ithuriel" knifed into the U-boat. Most of the "Cobalto's" crew had already plunged to safety, and can be seen floating about in the sea

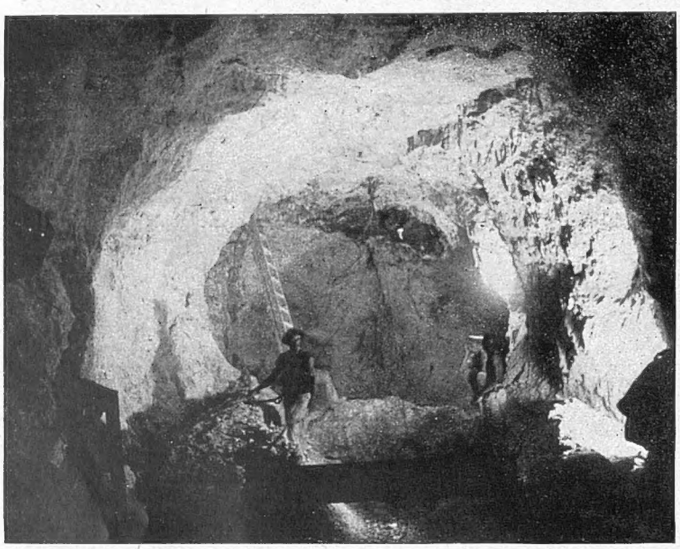
PICTURES from the U.S., SYRIA and FRANCE



MRS. HENRY J. KAISER LAUNCHES ONE OF HER HUSBAND'S SHIPS: With the master shipbuilder as a spectator, Mrs. Kaiser prepares to break a bottle of champagne against a Liberty ship which was built in the record time of 24 days. Since then Mr. Henry J. Kaiser has built a vessel—complete—in 14 days! He operates several yards in the United States and more are being constructed. He has undertaken to build 679 vessels, each of 10,500 tons, 56 tankers and 10 transports



OPENING UP A STRATEGIC ROADWAY THROUGH THE HEART OF BRAZIL: This great highway, when completed, will have a total length of 4,113 miles; and it will prove of the highest strategic importance in Brazil's defence plans. The small portable homes seen above go along with the workmen as they move from one section to another: they are transported by lorry, cost about £7 apiece to build, and can be erected in thirty minutes



TWO YEARS' WORK IN TWO MONTHS—Making the Palestine-Syria railway: The most difficult part of this undertaking has been the construction of the Chekka Tunnel, which is two miles in length. Normally, the tunnel would take two years to build, but a specially recruited company of Kaffirs, Basutos and Bechuanas is expected to finish it within two months. Loose earth and rock make blasting impossible in places, and the work has to be done by hand. After digging away the loose rocks, the roof is shuttled and filled with 25 ins. of cement. British, South African and Australian engineers are working on this great project

A GENERAL VIEW OF A CUTTING ON THE NEW RAILWAY being laid towards the entrance of the Chekka Tunnel, seen in the picture on the left

FRENCH PRISONERS-OF-WAR RELEASED BY THE GERMANS IN EXCHANGE FOR SKILLED FRENCH WORKERS: The first trainload arriving in Macon, France, after more than two years in German prison camps. Prisoners-of-war will be repatriated in a one-to-three ratio for skilled French workers sent to the Reich. The Vichy description of this picture contained the words: "They were received with enthusiasm, and joy illuminated their faces"!

The DEFENCE of STALINGRAD

New Pictures of the Fighting Along the Volga River

ONE OF THE PORTIONS OF THE OUTER RING OF STALINGRAD now in German hands. The buildings which still stand are mere shells, and the streets are littered with the debris of war

DOWNCAST GERMAN PRISONERS, amongst whom may be observed airmen of the Luftwaffe, marching away to the rear after capture during the fierce battles on the Eastern Front

HOW THE GERMAN ENGINEERS CROSS A RIVER swollen from the first rains of the autumn, in order to strengthen the bridges which link up the enemy positions

A LINE OF WRECKED AND BURNED-OUT TANKS marks the approaches to the city of Stalingrad. German tank casualties were very high during the penetration into the city; and in the streets they can now no longer be used

IN THE SOUTHERN SECTOR OF STALINGRAD, which is fast becoming devastated as a result of the pitiless battles which have been raging there for weeks. Dwelling-houses such as these, as well as big concrete factories within the city's industrial belt, have been reduced to heaps of rubble, owing to the incessant bombing from the air and the shelling of the land artillery

ON THE MODERN BATTLEFIELD THE INFANTRY MUST KEEP PACE WITH THE TANKS: To achieve this, the foot-soldiers are driven to the scene of action in "general" cover for the final spurt across the open space in front of the enemy, the lorries go to position

LORRY-BORNE INFANTRY
IN THE EGYPTIAN DESERT

How the Modern Soldier Takes the Omnibus into Battle —The Technique of the Infantry Onslaught of To-day

Described by F. A. NOLAN

IN the days when the tank's best speed was a mere 5 m.p.h., supporting infantry could trudge fairly comfortably along in the rear. As soon as armoured vehicles became capable of up to 30 m.p.h. over any kind of ground, the question of enabling the foot-soldier to keep up with them in battle had to be faced, and a very pretty problem it has proved. In the main, lorry-borne troops are carried in general-purpose vehicles, which may be used on other occasions for ordinary supply duties. They proceed in the rear of a screen of armoured fighting vehicles, and will disperse after the troops have "de-bussed" when the time for fighting comes, or if unusually heavy opposition is encountered. Some lightly-armoured vehicles have been specially designed for troop-carrying, it is true—our own carriers on the style of the Bren carrier, for instance; the American Marsh-buggy, with a capacity of seventy-five men; and in the Russian Army a special type of tank with hand-holds round the side for a dozen men, rather like a fire-engine. But the impossibility of complicating Army life too much by single-function vehicles compels reliance, in the main, to be placed on perfectly ordinary lorries for troop transport.

Naturally enough, the Libyan campaign has seen the technique of lorry-fighting developed to a high-pitch. In the case of a small patrol, the trucks will be driven by the infantrymen themselves. In the case of full-scale battles, as in the fighting round Bir Hacheim last June, the trucks and drivers will be provided by the R.A.S.C. The troop-laden lorries may have to be driven, as they were on this occasion, right through an artillery barrage until they are well within machine-gun fire of the enemy. Here the troops "de-bus" and proceed to attack, while the lorries withdraw to such shelter as they can find—in the desert usually behind a ridge or in one of the numerous gullies. Here they await the result of the engagement. If successful, and if a general advance is intended, they may re-embark the men and push on. If nothing but a raid is intended, or if local opposition proves too strong, the lorries will pick up their men and retire to their old positions, usually the brigade concentration point. If attacked en route, such a convoy can give quite a good account of itself against aircraft and lightly-armoured vehicles by the Bren guns with which it is liberally equipped. These weapons can be fired with very fair accuracy even while the lorries are racing over rough ground. The special gun-mountings and harness used for the purpose are now a familiar sight to everyone. Two- and 3-in. mortars (the former an excellent one-man weapon, the existence of which has only recently been released), anti-tank rifles and sticky bombs help the convoys to defend themselves against heavy attacks by enemy tanks. These weapons can only be used after the men have "de-bussed," or while the lorries are stationary.

Naturally, every attempt is made to give the troop-carriers an adequate escort both of armoured vehicles and aircraft, but even when this has not been forthcoming the speed and manœuvrability of the lorries make them less easy prey than might be supposed. They advance in the equivalent of "open order" over as broad a front as possible. The two chief troubles of the drivers are sand and land-mines—goggles for the driver and special filters for the engine take care of the first, while for the latter the men have to depend largely on their own keen eyesight and "battle-sense." At night a ring or "laager" is formed, with the tanks on the outer circle, their crews sleeping beside them, and the lorries in the centre.

HOW THE MINES OF THE WESTERN DESERT ARE OFTEN SWEPT UP BY BRITISH SAPPERS *BY HAND!*

Royal Engineers often have to sweep the desert clear of land-mines so that vehicles can be brought up to the attack. Mine-sweeping by hand is an arduous and risky business: there are many secret devices for detecting mines, but when an offensive begins, the R.E.s may have to work with very homely weapons. The sapper often walks forward without cover under heavy shell-fire, probing the ground all around with his bayonet: by this means the flat land-mines can be detected and, ultimately, removed

purpose" vehicles operated (usually) by the R.A.S.C. In a big-scale action, the troops are brought right up into the battle zone by this means. As the men take in the rear, ready to pick the men up again should such action become necessary—*Drawing by E. Byatt*

BEFORE THE INFANTRY MOVE UP TO THE ASSAULT ON FOOT, SPECIAL ACTION BY THE ARTILLERY IS USUALLY NECESSARY where mine-fields are known to exist. The big guns are first used to destroy the mines and then to support the infantry advance across the plain. Anti-aircraft protection has also to be provided always as a deterrent against the enemy dive-bomber—*Drawing by E. Byatt*

The work of the motorised patrols, including the now famous Long Range Desert Patrols and the motorised brigades, comes into rather a different category. These are "cut-and-thrust" operations, never on a very large scale, though sometimes of surprisingly lengthy duration. It is not unknown for a raiding patrol to be away from its base and out of touch for many weeks.

One such wrecking patrol of ours was operating in the Gulf of Sirte region early this year, paying special attention to German planes on the small desert dispersal aerodromes. They were divided into two parties and made a total bag of ninety-one Axis planes in the fortnight they spent in the rear of the enemy. Ordinary light lorries were used, driving by night and hiding in the broken terrain by day. On a raid the lorries halted near by while the men "stalked" the last mile or so to the airfields and wrecked every machine they found. One of the two parties into which the raiding column was divided actually lost its vehicles as a result of an attack by dive-bombers. They proved their standing as desert fighters, however, by living off the country for a week until they were able to capture several enemy lorries. In the end, every man of the wrecking force returned safely.

Picked men of the 8th Army have figured largely as lorry-borne infantry with these raiding columns. Some of the more ambitious operations of this nature were carried out in the Alamein sector before Auchinleck's attack. The raiders here consisted of motorised infantry, having armoured cars, 25-pounder "field-hows" towed by the ungainly quads, the new 6-pounder anti-tank guns and wireless trucks. They operated well within enemy territory, and brilliantly carried out their job of attacking enemy supply lines.

On the smaller raids the men carry a mixed armament of Bren and tommy-guns, anti-tank weapons and a very generous supply of hand-grenades, still, as in 1914, one of the very best weapons for night-patrol work.

Undoubtedly, one of the classic achievements of motorised infantry in this war was during the fighting retreat from Bir Hacheim. This strong-point was held by 4,000 men under General Koenig for eighteen days. When the time for retreat arrived, one night, the garrison marched six miles to a rendezvous on the west, where the lorries of the 7th Motorised Brigade were waiting with an escort of armoured cars and mobile artillery. Despite the brief period of darkness, practically the whole of the garrison made the rendezvous and escaped successfully—an occasion when "missing the bus" would have had very unpleasant consequences.

AN INCIDENT IN THE DESERT when German Mark III. tanks were surprised by British anti-tank artillery on their left flank. The accuracy and devastating fire of these guns caused havoc among the leading enemy tanks, the turret of one being completely blown off—*Drawing by L. Ashwell Wood*

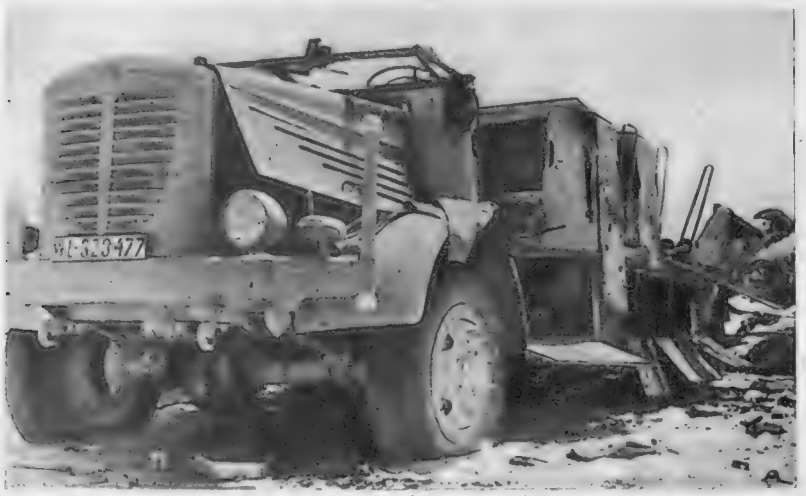
WHEN A TANK IS HIT

A Few Impressions of what Happens when the Big Desert Vehicles are Caught by Concentrated Shell-fire During Battle

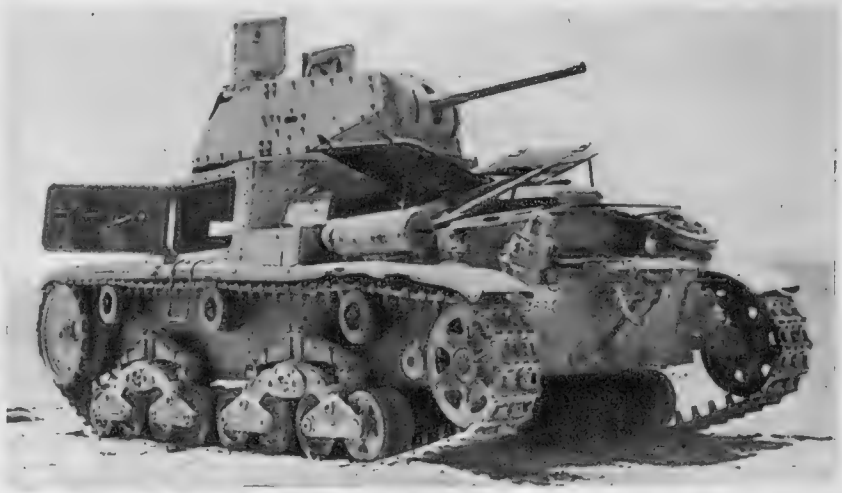
Throughout the desert, where the fighting has been fiercest, are large areas now littered with the debris of modern warfare—blackened, blown-up tanks; charred lorries; ruined transport vehicles. The manner in which large tanks can be blown up is surprising—and a great tribute to the accuracy of anti-tank fire: "In some places you saw a tangle of black girders twisted high up into the desert sky," writes one observer. "It looked as if some lorry had been hit by a bomb. When you drew near you found it was the remains of a powerful tank, blown apart with such violence that the turret, with its large gun, had been flung 50 ft. away like a discarded tin mug. Heavy tracks, ripped off as if they were worn bicycle tyres, lay curled on the sand, and broken plates of thick armour. . . . The completeness of the damage is due in some cases to the work of the demolition squads, who creep out when darkness falls, across the tank battlefields, on the grim and dangerous task of blowing up tanks disabled in No Man's Land. . . ." Such scenes as these are depicted in the illustrations given here.

A LORRY WHICH FORMED PART OF ROMMEL'S EQUIPMENT after it had sustained a hit from a 25-pounder. Not a single plate of armour remains intact

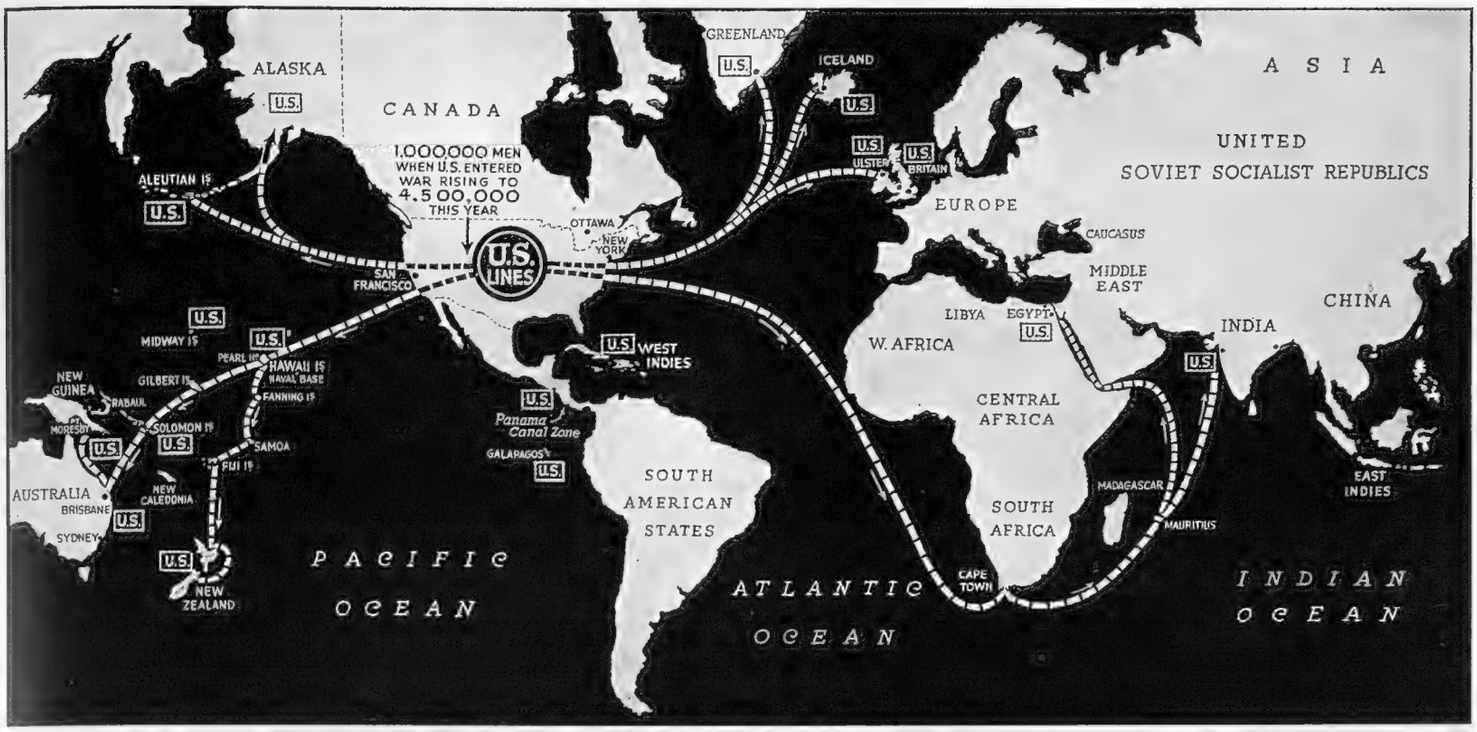
THE SUPERSTRUCTURE AND TURRET OF A GERMAN MARK III. TANK knocked clean off by a direct hit and deposited some yards away



A GERMAN SIX-WHEELED TROOP-CARRIER caught in an artillery barrage to the south of El Alamein. Blast is largely responsible for the manner in which the steel plates have been pulled outwards



THIS IS A REAR VIEW OF AN ITALIAN M 13-40 TANK. It was probably hit on the other side and received irreparable damage which caused its abandonment. Note the open engine-cowls below the turret



THE DISTRIBUTION OF THE AMERICAN WAR EFFORT : A survey of U.S. military movements since that country entered the war shows a very wide distribution of her armed forces. Not only have troops and Marines been landed in Great Britain, Ireland, Egypt, India and Australia, but lesser strategic bases are now also held in great and growing numbers all over the world

WASHINGTON'S FOUR LINES of WORLD STRATEGY

How the United States Army is being Distributed To-day Over the Whole Globe

TO the casual observer it might appear that the United States of America is at present tending to fall into the major strategic error of great oceanic Powers at war—namely, dispersal of forces in scattered campaigns conducted along exterior lines. Already units of the American Army are operating, or preparing to operate, on fronts from the South Seas to Northern Europe, from Iceland to India. But strategic appearances are sometimes the most deceptive of all—as careful analysis of American commitments to-day may show.

It is naturally impossible to give exact figures of the number of men already sent by the United States to the various theatres, and the warning is given at once that most of the statistics provided in this survey are hypothetical, and presented only for the purpose of setting doubtful minds at rest. But our Allies have themselves from time to time thrown out broad hints of their approximate liabilities and intentions.

Thus we know for sure that when the United States entered the war she had an army of 1,000,000 men, and that by the end of this year it will have been increased to 4,500,000 men and probably more. Since Pearl Harbour this force has undertaken (1) a minor offensive in the South-West Pacific, after establishing or increasing small garrisons in Australia, New Zealand, New Caledonia, Samoa, the Gilbert Islands, Fanning Island, Hawaii, Midway Island and the Galapagos; (2) the establishment of stronger garrisons in Alaska and the north-eastern Aleutians; (3) the strengthening of units in Newfoundland, Greenland and Iceland, and the projection of the outriders of a large army in the United Kingdom; (4) the increasing of garrisons in the Panama Canal Zone and the West Indies, and the sending of small contingents to West Africa, the Middle East and India.

It sounds tremendous, but in reality may not constitute such a dispersal as the bald recital of the facts might appear to indicate. Thus we have been given to understand on several occasions that the number of men employed in the South Seas theatre has been small. Possibly a few thousand in the Solomons, about the same number in Australia, battalions here and there in other outposts, and an enlarged garrison in Hawaii might not total more than 100,000 men. If the Alaskan theatre had absorbed another 25,000, Newfoundland, Greenland and Iceland about the same, and the West Indian, West African, Middle Eastern and Indian contingents about 100,000 again, then the sum of American commitments outside Europe would not absorb, at present, more than 250,000, or a quarter of the peacetime establishment of the United States Army.

If one guessed roughly that such figures represent the maximum American effort in outlying theatres, it cannot be argued that our ally is spreading himself unduly as yet: and all those figures fall quickly into the background when attention is turned to the United Kingdom and the flow of United States troops proceeding there at the moment. Even guesswork would be dangerous in this case, but it should be obvious to everyone that the flow is very great indeed, and that our ally is really concentrating the bulk of his massive strength on the one narrow front—that front which it is our present privilege to hold and, eventually, to extend. It may be said, however, that such European drafts had, up to the beginning of September, brought the total American overseas commitments up to 500,000 men.

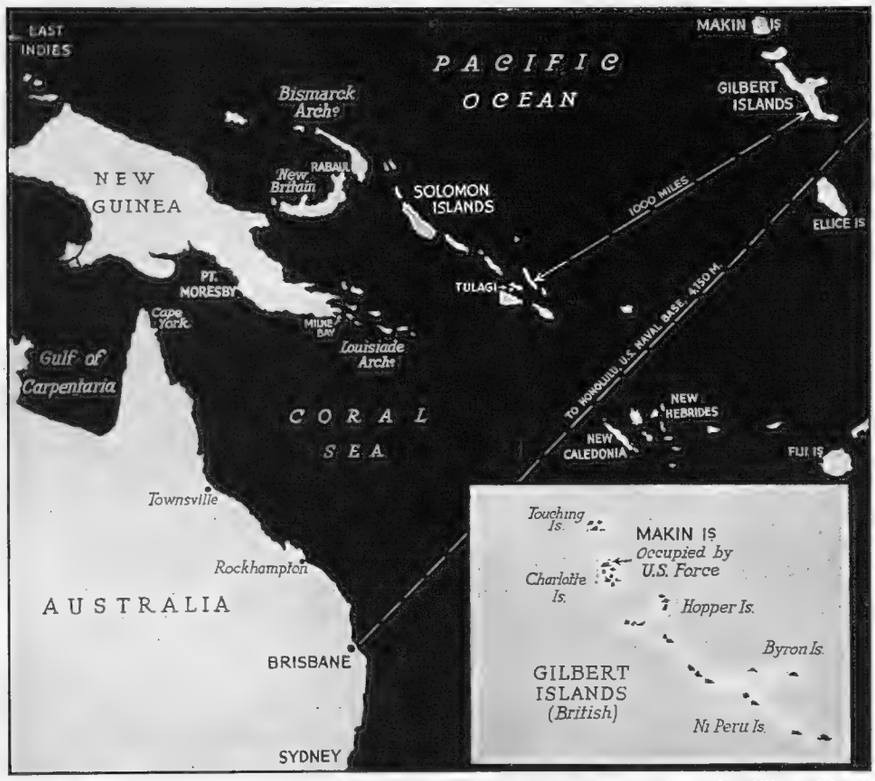
Such an exposition may not, however, dispose of the basic criticism of United States strategy to date: the objection that it is being conducted expensively on "exterior" lines. Most people know what "exterior" and "interior" lines mean. The first has been clearly exemplified in this war by our own world-wide strategy, the second by that of Germany. To engage our enemies, we have had to make long voyages and then establish overseas bases from which to operate. The Germans have simply had to emerge from Germany along radial railways, roads and air routes, and have been able usually to operate (save in the case of North Africa, and even there they have been near enough in Greece and Italy) with Germany as the operational base.

But the speeding-up of communications in our time has rather altered the old conception of "exterior" and "interior" lines. It is still necessary for a Power to occupy a central position if it wishes to make war efficiently, but its area of potential operations has been greatly increased by the faster communications. Consider the accompanying diagram, which shows the strategic potentialities of the United States at the present day.

From this it will be seen that our ally does indeed occupy a central position in the present war, and that, thanks to the way Washington has planned the various operations, all American commitments are covered by four main lines, proceeding respectively north-east, south-east, south-west and north-west from the central base on the American continent. Of these, only the line north-east to Newfoundland, the British Isles and Iceland, and the line south-west to Hawaii, the Solomons and Australia are major undertakings. But all are cleverly planned to comprehend wide areas: they are "strategic highways," in the newest sense of the term, along which large quantities of reinforcements and supplies can regularly and efficiently flow from the United States without interruption or "transhipment."

It becomes evident, then, that our American ally, far from dispersing resources unwisely, is operating on the modern, large-scale equivalent of the old "interior" lines.

Donald Cowie



SOME OF AMERICA'S MANY SEPARATE PACIFIC LANDINGS : During recent days the Gilbert Islands have been taken over by U.S. forces; other centres in which the U.S. is vitally interested are the Solomons, New Guinea and New Caledonia

THE "INVISIBLE" BRIDGES OF STALINGRAD

The Clever Russian Device Whereby Supplies and Reinforcements were Brought Across the Volga

—Drawing by W. G. Whitaker

The defence of Stalingrad has called forth one of the cleverest devices of the present war—the "invisible bridge," across which Marshal Timoshenko poured reinforcements and supplies into the city every night. This Russian invention, first used in the battles of the Don crossings, was for a time believed to be the main channel of communication and supply between the beleaguered garrison and Red Army depots on the east bank of the Volga. The "invisible bridges" were built by Soviet engineers sixteen to twenty inches under the water: they cannot be seen from the air, except in the calmest weather when the surface of the water is unruffled. When there is fog, guide-rails are quickly erected on each side, and columns of infantry, ammunition-wagons and mortar batteries stream across into the city, wading up to the knees. The Soviet plan was discovered when an Italian unit on the west bank of the Don awoke one night to the realisation that hundreds of Russians were in the middle of their camp! After a savage fight the Russians withdrew. The Italians were amazed to see them apparently walking on the water. Close observation then revealed about a dozen of these bridges. At Stalingrad, the River Volga gunboats assisted in guarding the bridges and in landing Soviet Marines at various points behind the German lines

THE JAPANESE RETREAT IN NEW GUINEA

The Australians Force the Enemy Back Across the Ridges which Fill the Owen Stanley Gap

—Drawing by Percy Home

Whilst the Japanese were advancing on Port Moresby, Australian stores and reinforcements had been accumulating at that point for the Allied advance which was announced at the end of the month of September. The news of the actual advance had been heralded, a few days before, by the intimation that considerable forces were being employed in a new offensive action against the enemy's advanced positions. He had spread out a series of posts for some ten miles, but his chief strong-point was on the Ioribaiwa 4,000-ft. ridge, which runs north-west to south-east on the southern side of the ten-mile gap in the Owen Stanley range.

This gap is flanked by two giants, Mt. Victoria, on the north (13,121 ft.), and Mt. Owen Stanley (13,205 ft.), on the south. The space between is filled by some half-dozen ridges of lesser height; their altitudes ranging from 3,000 to 5,000 ft. The ridge on which the Japanese had established themselves is distinct from these gap ridges; it stood in the way of any advance to Kokoda, the important military point on the lower ground, where the road turns eastwards direct to Buna.

On the opening days of this month, the attack began on the Japanese strong-point at Ioribaiwa. This had been protected by an 8-ft. stockade, extending in one section to a length of 400 yds. Above and below this were gun positions and entrenchments. A little way behind was the native village of Ioribaiwa. The attack began with some excellent artillery fire from 25-pounders, a machine-gun nest being blown sky-high by a well-placed shot. Holes were blown in the stockade, and after a general advance had been made, the guns took up point-blank firing over open sights. The position was finally rushed and captured. The native village was also captured. The forces then pushed on towards the ridges over which the jungle track rises and falls on its way to Kokoda. Nauro was the first point taken, the Japanese retreating before the steady advance of the Australian force. From this point onwards little more than rearguard defence appears to have been put up by the enemy.

From Nauro there was a 3,500-ft. climb to the summit of the ridge overlooking Menari, which was reached after a 3,000-ft. drop. From this point there was a further climb, the retreating enemy being followed to Efogi. Here the road forks to Kagi, to the west, and to Myola, on the east, but the two tracks, passing through dense jungle, converge as they reach the 5,500-ft. ridge overlooking the steep descent to Kokoda. To reach the sea from this important point, the road track turns almost due east. Across it runs the valley of the Kumusi River, crossed by a suspension-bridge at Wairopi. Any Japanese reinforcements from Buna must cross by this bottle-necked bridge (10 ft. wide). The approach piers have been frequently bombed in the daylight, and hurried efforts at repair have been attempted by the enemy under cover of night. Whether the enemy would make any stand before Kokoda remained, at the time of writing, uncertain

WINTER at SEA

Sidelights on Naval Life in Northern Waters when the Heavy Weather Comes to the High Latitudes.

By MICHAEL J. MASSEY

ALL armies, from the days of Cæsar downwards, have gone into winter quarters to a greater or lesser extent. Not so the Navy (where the subtle difference between sea-going and sea-keeping is fully understood), and life at sea in the winter, even aboard the largest ships, makes full calls on the sailor's traditional ability to fend for himself if life is to be kept tolerable. When one realises that some of the smaller escort ships on the Murmansk route have actually accumulated so much ice on their upper works as to be in danger of turning turtle, one realises that life under such circumstances demands far more than ordinary fortitude.

On one such ship—a trawler—the ice-layer on deck and wheelhouse was over 3 ft. thick. Even steam-hoses were powerless to thaw such masses, which had to be cut away with picks and axes. On many occasions the crew cleared a quantity estimated at 40 tons of ice an hour, and to crown it all, most of her officers and men were volunteers newly-arrived from South Africa!

Since life in the Navy is very much a matter of rules and regulations, it is not surprising that the question of dress is well provided for. Aboard the larger ships, the dress of the crew is that prescribed by the bridge as the "rig of the day." When the occasion requires it, a special issue will be made of specially warm clothes, sheepskin and duffle coats, Balaclava helmets, thicker underclothes, gloves and long sea-boot stockings in natural greasy wool which keep dry surprisingly well. A change of clothes or rig, by the way, is always referred to officially as a "cleaning." In the old days of coal-fired men-of-war the coaling rig was always the oldest and dirtiest clothes the crew possessed, yet the order was still given to "clean into" coaling rig!

With the smaller ships, greater liberty of dress obtains. Since many of the crew are "hostilities only" men, recruited from various walks of life, some surprising combinations of peacetime clothing are officially winked at, though it is true that trawler skippers, as in the last war, are politely but firmly weaned from the bowler-hats which many of the older generation affect in peacetime. One fashion introduced by many young R.N.V.R. officers in northern waters is that of the purchased Army battle-dress, dyed navy blue. The effect is very neat and workmanlike, and so far has at least been tolerated by higher authority.

Naturally, the ship herself plays by far the greatest part in the comfort of her crew. At one time not so long ago some Admiralty trawlers built and designed for service in the Mediterranean had, owing to the exigencies of war, to be sent to the neighbourhood of Iceland. Life aboard them can well be imagined. On the other hand, some of the modern fishing trawlers which the Admiralty "borrowed" are remarkably warm and comfortable. Their normal fishing duties in peacetime took them to Bear Island, lying just a little south of Spitzbergen. Steamheated fo'c'sles and officers' quarters, together with special clothes-drying facilities, made life aboard them as pleasant as possible under the circumstances. In fact, of all the smaller vessels the Navy has been operating in northern waters, these trawlers have been the most popular with their crews.

"IN THE WINTER THE NAVY HAS A UNIVERSAL PREDILECTION FOR COCOA. . . . Supplied in the form of a thick slab, it is sent up on deck brewed with only sufficient hot water to make it barely liquid—in a really good brew the spoon is visibly reluctant to fall over!"—*Drawing by Edward Osmond*

KEEPING THE LIFELINES OPEN: An officer on board a destroyer takes a sight with the sextant, while the signalman keeps watch over the convoy with a telescope. Behind, the A.-A. gunner sits by his gun ready for instant action

The main difficulty of operations in Arctic waters arises not merely from the cold, but from the bad weather and heavy seas. Speed must be kept up, with the result that heavy seas are likely to be taken aboard, and in these high latitudes what water comes aboard will freeze very quickly. Even the cruisers have difficulty in keeping their forward guns fit for action, despite electric heaters and steam-hoses. One report of a recent trip stated that to keep the forward guns from being jammed solid, the mountings had to be kept continuously on the move, traversing from side to side. Some of the smaller ships on the same occasion became so coated with ice as to be in real danger of disaster. In their case there was nothing for it but to turn about and steam down-wind. On this course it became possible for the crew to hack enough of the ice off to make it safe.

It is not surprising that months of exposure to such conditions should tell on even the toughest men. Everything possible is done for the maintenance of health and good spirits, however, and one recent innovation is the provision of artificial sunlight treatment for the crews of surface ships and submarines alike.

A minor aspect of winter life at sea is that cocoa comes into its own. In the summer months, "goffers" (as, for some unknown reason, the ratings name their between-meals drinks) usually consist of soft drinks such as lemonade. But in the winter the Navy has a universal predilection for cocoa. This may seem very poorly suited to the strenuousness of the occasion, but not to those who know Navy cocoa. Supplied in the form of a thick slab, apparently containing a liberal percentage of brown sugar, it is sent up on deck brewed with only sufficient hot water to make it barely liquid—in a really good brew the spoon is visibly reluctant to fall over! As a sustainer in cold weather, it easily takes precedence of any other drink yet known or thought of.

KEEPING CLOSE STATION DURING NAVAL OPERATIONS

This is Where the Smaller Vessels Shine, as was Again Demonstrated During the Passage of the North Russia Convoy Recently

By ARTHUR BARRETT

THOUGH the essence of good seamanship is to give one's ship always plenty of sea-room and avoid risk of collision, there are nevertheless many naval occasions on which it becomes necessary to manœuvre at very close quarters. It may be merely the passing of mails from one ship to another, the transferring of a badly wounded man to a larger ship for treatment, or the rescue of the crew of a sinking vessel. What was probably a unique occasion occurred during the recent Murmansk convoy. Rear-Admiral Burnett was swung by bo'sun's chair and crane from his flagship, *Scylla*, to an attendant destroyer. The *Scylla* had casualties which needed shore attention, the convoy could not halt to lower a boat for the Admiral to change his ship, so this unusual method had to be adopted.

It is on such occasions as these that the destroyers shine. Those who have seen them entering the "pen" at Harwich, for example, with the same precision almost as the *Royal Scot* pulling up at Euston, know what they can do in capable hands.

The modern destroyer is a high-powered twin-screw ship—the propellers are "handed"; that is, they rotate in opposite directions. Usually the starboard screw rotates in a clockwise, and the port screw in an anti-clockwise, direction. It is largely to this fact that they owe their exceptional powers of manœuvre and often more steering is done by varying the speed of the engines, and reversing one or the other of them, than by the rudder itself. If one engine of a destroyer is run ahead and the other astern, both propellers will be turning in the same direction and will set up a thrust which will have a strong turning tendency on the ship. By reversing the appropriate engine, the ship may be made to turn as desired almost "in its own length" at high speed, and by reversing both screws a tremendous braking effect is obtained.

Normally, when approaching another and larger vessel, a destroyer will come up on the lee side, to obtain the benefit of smoother water for manœuvring. But if the other vessel is on fire, or out of control, this may be too dangerous. In such a case the rescuing destroyer may steam to windward of the other vessel and then back down on her.

The men on the bridge then have the ticklish job of ordering the engines ahead and astern, often for only a few seconds at a time—a destroyer's plates are perilously thin, and to allow her to bump alongside a larger ship in rough weather would be certain to do grave damage. In really bad weather it may be impossible even to do this, and then there is nothing for it but to send off a boat, or in extreme cases, to float boats and rafts down on the ends of warps. The destroyer commander whose crew includes a sprinkling of Newfoundlanders can count himself lucky, for their experience fishing on the Grand Banks makes them the best boat crews in the world.

Less melodramatic occasions still call for highly skilled handling. The routine picking-up of mails or despatches is usually done while under way. The two ships steam together on a parallel course, perhaps 100 ft. apart. A rocket-line is fired from one to the other, a miniature breeches-buoy rigged, and the mails are soon pulley-hauled across while the ships are making anything up to 15 knots. The line, of course, plays no part in keeping the ships together, though it does make a convenient gauge for the helmsmen in keeping station. The helmsmen have to be very much on the alert, for there is a definite tendency for two ships steaming together to close one another still more—a phenomenon the older generation of seamen ascribed to various reasons, but which is now known to be due to the fact that the water in the narrow space between the two ships is travelling rather faster than the water outside, and so quite appreciably draws the ships together.

"AN AMAZING FEAT OF SEAMA
transfer some 80 survivors from a
vessels had to steam at an equ
feat in peacetime in a smooth
same fe

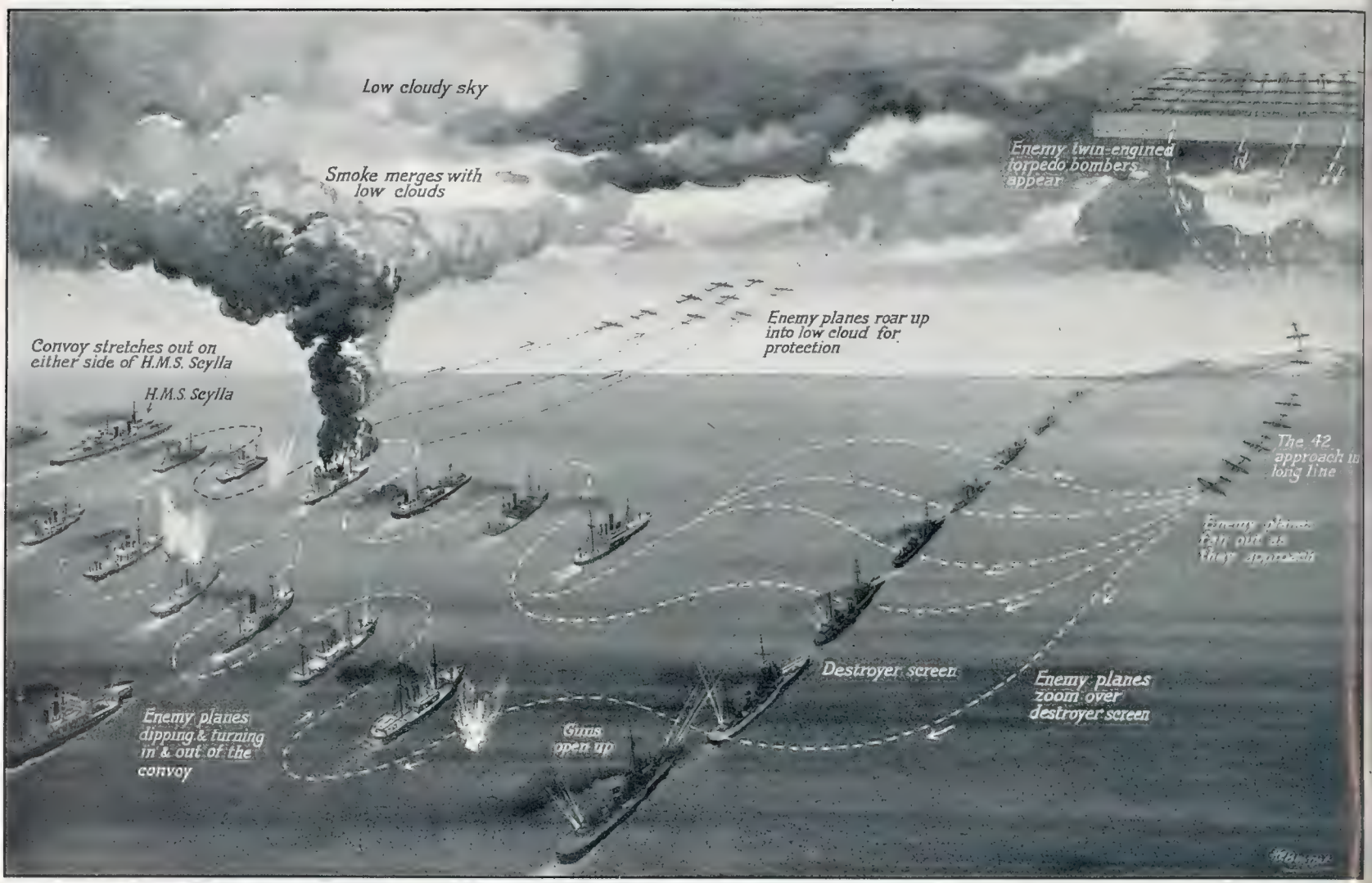
***On left*—THE END OF THE DESTROYER "SOMALI" after she had been towed for three days**—*Drawing by Wm. McDowell*

Somali was a Tribal class destroyer of 1,870 tons, one of the finest and most versatile types in the Navies of the world. During the passage of the North Russia Convoy, she was twice hit by torpedoes fired from a U-boat. The *Ashanti*, another Tribal class destroyer (which had come up from the Mediterranean specially to help escort this Convoy), took her in tow, and for three days stood by her helpless sister; but eventually *Somali*'s back was broken by the heavy seas. It is possible that the destroyer's hull structure was originally weakened amidships by the torpedoes. On her attempted homeward journey, there was a strong following north-easterly gale: the heavy swell, with deep troughs, probably took away support from the destroyer where it was most needed and thus caused the fatal snap which broke the vessel in two. All the vessels of the Tribal class averaged about £467,000 apiece to build: the *Somali* was actually fitted out as a Leader, although she was not classed as such

SHIP": THE TINY MINESWEEPER "HARRIER" (OF ABOUT 800 TONS) COMES ALONGSIDE THE CRUISER "SCYLLA" (OF 5,450 TONS), ADMIRAL BURNETT'S FLAGSHIP, to a torpedoed merchant ship during the attack on the Convoy to North Russia. The "Harrier" has a maximum speed of 17 knots, the "Scylla" 33 knots—yet both speed, keeping their allotted stations in the general scheme of the Convoy. This was done by the smaller vessel lashing herself alongside the cruiser—a difficult a : on this occasion, however, the operation had to be carried out in a high sea, with an icy wind, and with enemy aircraft overhead! Some time later, the was performed a second time by H.M.S. "Sharpshooter," another minesweeper of the same class as the "Harrier"—*Drawing by Montague Dawson*

THE CONVOY STEAMS AHEAD, EVERY SHIP KEEPING ITS PROPER STATION, whilst the enemy attacks from the air developed: This picture was taken as the North Russia Convoy fought its way through, and just after the enemy had registered a near miss on a British aircraft-carrier

"The WORST AIR-TORPEDO ATTACK of the WAR": *Special drawings of incidents during the four-day assault by the Germans, in which torpedo-bombers and "circling torpedoes" were used*



FORTY-TWO GERMAN TORPEDO-BOMBERS ATTACK AT ONCE

The enemy approached the Convoy in line, then fanned out, to leap over the destroyer screen and dive in and out among the vessels of the Convoy

—Drawing by H. P. Burton

The most threatening moment of all was the prolonged and concentrated assault carried out by forty-two torpedo-bombers—"the worst torpedo-bombing attack of the war," as Rear-Admiral Burnett described it. The aircraft—Heinkel 111's and Junkers 88's, all twin-engined heavy bombers and each carrying two torpedoes—came in a long line, only a few feet above the surface of the water and fanning out as they approached. The flagship *Scylla* was in the centre of the Convoy, with the merchantmen stretching out on each side of her: the destroyer escort was the largest ever known. As the torpedo-bombers approached, they leaped over the escorting vessels and dipped in and out of the Convoy, sometimes mast-high, sometimes only deck-high—so that watchers on the bridge were able to look *down* on the aircraft! The Germans pressed home the attack, the Heinkels and Junkers roaring past the ships and turning sideways to launch their torpedoes, whilst the merchantmen continued steadily on their course without the slightest deviation. The cloud base was low, and from time to time the bombers roared up into the low ceiling for protection from the mass of flying metal. It was the first time the Germans had used torpedo-bombers on this route: and their losses must have been very heavy—probably much heavier than were officially reported.

THE HEINKEL III'S, CONVERTED TO CARRY TWO TORPEDOES, launch them at the Convoy

An enemy device just put into practice for the first time

—Drawing by Roland Davies

Apparently, both Ju. 88 and He. 111 have been adapted to carry *two* torpedoes: in the latter, crutches have been provided for two 18-in. torpedoes to be carried side by side under the forward portion of the fuselage, and two special Daimler-Benz engines have been fitted to this type of aircraft. After the first mass attack depicted in the upper picture, another wave of torpedo-bombers came in—this time at high-level, low-level and sea-level. The cruiser *Scylla* was specially singled out for attention, but brilliant seamanship caused the "tin fish" to drift harmlessly past her stern. The method of attack by torpedo-bomber is shown above: note in the drawing the gun turret fitted to the underside of the aircraft amidships.

A NEW TRICK BY THE NAVAL GUNNERS

Firing at the water to make the tracer shells ricochet upwards, to hit the low-flying German bombers!

—Drawing by Roland Davies

The diving Heinkels and Junkers, at the end of the battle with the Convoy, streaked for home followed by myriads of shells (to say nothing of the Sea Hurricanes which had also entered the fray). Those that dived low to the sea to avoid the higher bursts of the anti-aircraft shells were met with a cunning trick by the British naval gunners: the Oerlikon guns were so ranged that the cerise tracer shells were made to ricochet off the water and strike up into fuselage and cockpit. Mr. Arthur Oakshott, Reuter's correspondent, saw at least one Junkers come to a sticky end by this method. To ricochet bullets is, apparently, just a "knack"—like the boy at the seaside who sends stones skimming over the wave-tops!

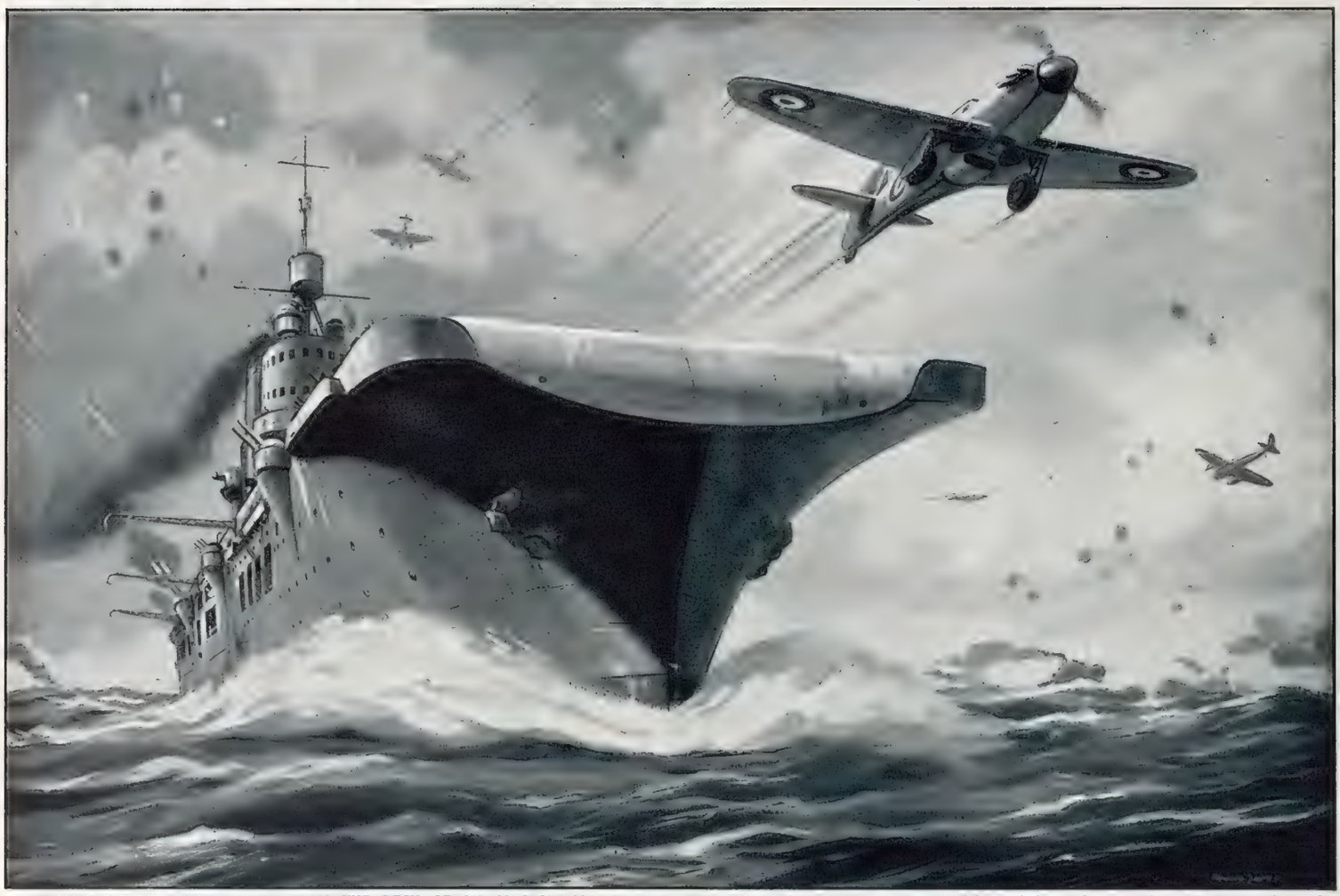
THE CIRCLING TORPEDO—a feature of the great air attack

The torpedoes, dropped by parachute from the bombers, moved in circles, which became smaller and smaller

—Drawing by W. G. Whitaker

The Commodore of the Convoy was Rear-Admiral E. K. Boddam-Whetham: it was he who first described the new "circling torpedoes" which the Germans used in some of their attacks. These, after launching, moved "rapidly in circles which become smaller and smaller. Most of the time we were able to take avoiding action, no matter what type of torpedo passed—and many passed within a few yards. Those that struck caused explosions that could almost be heard at the North Pole." This type of "circling torpedo" is not new: the Royal Navy experimented with them in the last war, and the Italians have also made use of them in the Mediterranean within the last year or two. For the attack on the Convoy, the torpedoes were attached to parachutes and dropped from aircraft flying at almost extreme range: probably owing to this, a great number of the missiles were drifted by the wind miles away from the Convoy! Accurate observation and perfect setting are required if the torpedo is not to circle short, or beyond, its target.

THE WORST AIR TORPEDO ATTACK OF THE WAR *(continued)*



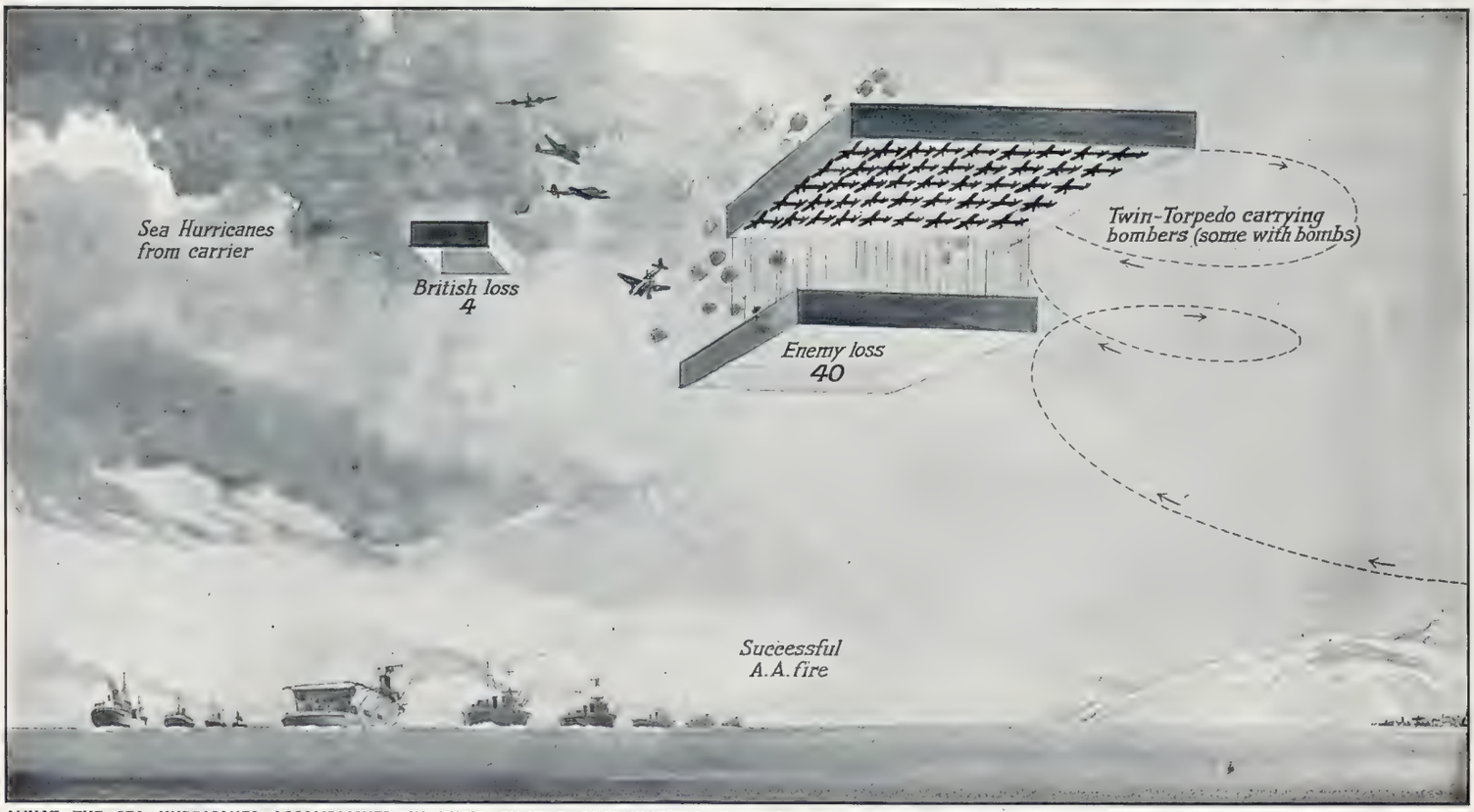
HURRICANE FIGHTERS ARE FLOWN FROM THE DECK OF AN AIRCRAFT-CARRIER FOR THE FIRST TIME: The new British fighting planes take off to combat the torpedo-dropping bombers of the Luftwaffe over the North Russia Convoy. They met with very considerable success!—*Drawing by Roland Davies*

In their first reports concerning the North Russia Convoy, the Germans announced that we had made use of Spitfires in the defence of the merchantmen. They were wrong: the aircraft they encountered were Hurricanes—or rather, *Sea* Hurricanes, and they were being used for the first time from the deck of an aircraft-carrier. The Hurricane has been one of our most versatile aircraft: it has fought under many guises, and in many theatres of war since those days when it beat back the *Luftwaffe* from Britain in 1940. Now it has gone up into Arctic waters! After the first attack by German torpedo-droppers, the Hurricanes roared off to do battle with the enemy; within a few seconds the bombers were being attacked above the clouds, below the clouds, in breaks through the "ceiling," and low over the sea. The Junkers and Heinkels twisted and turned, slipped and rolled, to avoid the relentless pursuit. Later waves of bombers were met by our fighters before they even reached the convoy: the formations were broken up, so that the bombers had then to go in singly—and consequently they became much easier targets for the guns. At least forty enemy bombers were shot down; but it is probable that the damage was far greater than this. Many more were seriously damaged. The losses amongst the Sea Hurricanes were four.

THE COMING OF THE SEA HURRICANE

The Latest Development in Sea-borne Fighter Aircraft: and what the New-comers Achieved Against the Germans

—*Two special* Sphere *drawings*



WHAT THE SEA HURRICANES ACCOMPLISHED IN THEIR FIRST ENGAGEMENT: At least forty Nazi planes were shot down and many more were seriously damaged: we lost but four of our fighters. The Hurricanes were, at first, announced as Spitfires by the Germans—*Drawing by H. P. Burton*

A NIGHT INTRUDER WARMS UP FOR THE WORK AHEAD : A fine impression of a Havoc II with whirling propeller blades as it tunes up before taking off for a marauding expedition over French Occupied Territory by night

WARFARE BY NIGHT
BY AIR AND SEA

Two Striking Night Impressions Taken During Recent Operations in Britain and in the Mediterranean

The Boston bomber has been operating during the past months in daylight over France, under its R.A.F. designation of Boston III : by night others of the same type (but known in the R.A.F. as the Havoc II) are now operating as Night Intruders over more or less the same area. They set out as night falls, with a roving commission, to attack railways, stations, factories, road transport, and whatever else may come within range of their guns. Here is a night intruding Havoc tuning up, with the propellers registering as filmy circles. The extraordinary little figure, like a running Mercury, just under the pilot's position, is an illusion of lighting : it is really a part of the under-carriage mechanism. The searchlight ray penetrates the cabin and lights up much of the detail within. These aircraft have been prominent in many important operations recently, but the Air Ministry have released only few details of the armament and equipment of the Boston or Havoc for publication

A REMARKABLE CAMERA RECORD OF A NIGHT ACTION BY A NAVAL ESCORT VESSEL IN THE MEDITERRANEAN

This picture of a cruiser in action gives a vivid impression of the scene as viewed from an accompanying vessel. The cruiser is firing her stern guns : the plumes of flame are lighting up the vessel's wake as it heaves up from a comparatively calm sea. The smoke of earlier discharges is drifting away astern. The picture was not obtained with a single exposure, as the film appears to record earlier discharges which seem to be coming from a ghostly ship behind. The number of masts visible in the picture indicates the length of the time-exposure given by the photographer

FIGHTING in the STRATOSPHERE

A Return to the Subject of High Flying, and Its Possibilities for Modern Bombing and Fighting Aircraft

By LEONARD R. GRIBBLE

THE announcement made recently that the *Luftwaffe* has two new high-flying planes in operation, and that the R.A.F. has a new Mark Vc Spitfire climbing to a fresh ceiling, has increased speculation about the possibilities and probabilities of stratosphere warfare. The aerial war, at any rate, seems to be approaching a new, and possibly significant, stage in its mechanical and tactical development.

The actual facts known are not many, but they serve as invaluable pointers in understanding the race for altitude that has begun.

It is believed in certain quarters that a new Junkers bomber, the Ju. 86P, capable of operating at the stratosphere ceiling of 40,000 ft., has already flown over Britain and dropped bombs. On the other hand, a report from Moscow has definitely stated that a new Messerschmitt, the Me. 109G, is operating on the Russian front. The claims made for this latest contender from the Messerschmitt stable are somewhat confusing.

Like the Ju. 86P, the Me. 109G is said to have a service ceiling of 40,000 ft., or something like eight miles. This means it can out-climb the formidable Fw. 190. It is said to have a liquid-cooled 1,700-h.p. engine, and armament of three cannon and two machine-guns, but the only report of actual performance that we have would seem very moderate for a plane with such an engine. Its speed is said to be not more than 330 m.p.h. at 13,000 ft.

But the fact remains that the Germans now have a bomber and a fighter capable of operating at 40,000 ft.—that is, invisible from the ground. The one they have kept in the West, the other they have sent to the Eastern front.

The reports have not caused the Air Ministry to reveal its hand regarding its own stratosphere designs. We know the new Spitfire is more heavily armed than its predecessor, and, considering the Spitfire's rate of climb and service ceiling, to have achieved this without forfeiting either marks considerable progress in design.

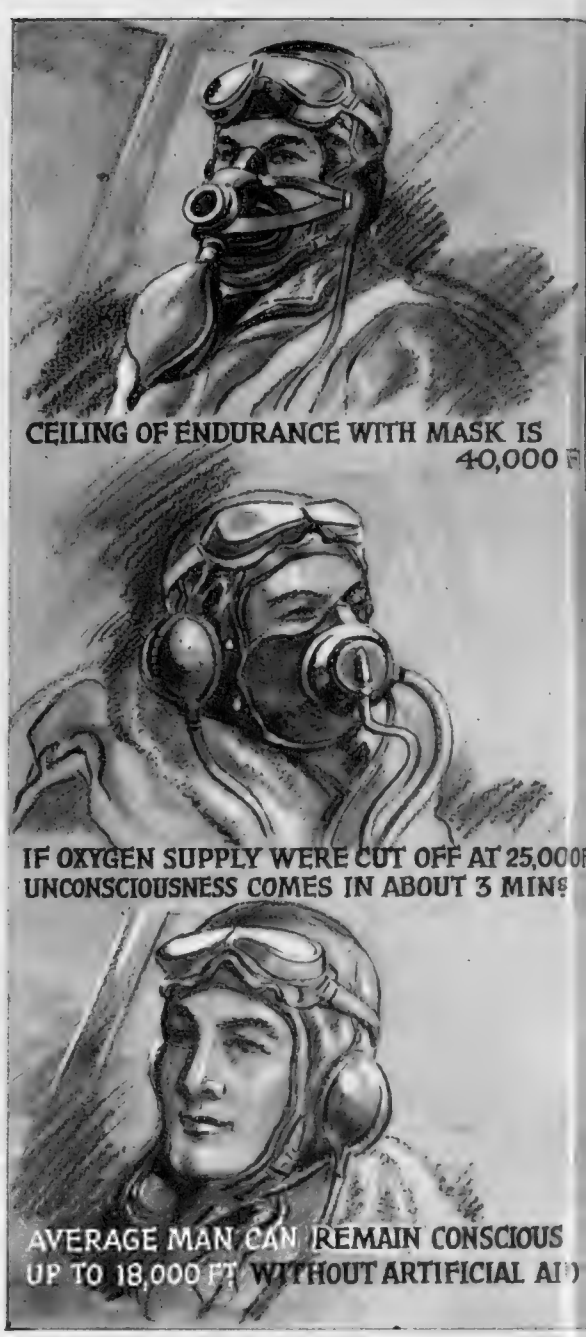
It is known that, some time before the war, German aeronautical designers were working at blue-prints for pressure-cabins, and were vigorously attacking problems of high-altitude engine construction. The Ju. 86P must, in in some measure, be the product of that research. It is an up-to-date version of the Ju. 86 bomber, powered with twin Diesel engines, which was tried by the *Luftwaffe* at the beginning of the war, without any marked success. But with a ceiling of 40,000 ft., the new bomber must be fitted with a pressure-cabin for its crew, or else they must wear special pressure-suits similar in general design to that worn by Squadron Leader Addams when he broke the world's altitude record by ascending to 53,937 ft., more than ten miles high, in June 1937. His pressure-suit was a bulky affair, somewhat resembling a diver's suit.

A pressure-cabin would seem to be a more practical affair for a bomber's crew than pressure-suits, as it would allow for greater freedom of movement. Freedom of movement would seem highly important in a plane flying at such an altitude that cloud, for the greater part of the time, would conceal the target, and where fighters assume a more deadly offensive.

In such pressure-cabins, the air pressure would have to be increased and maintained as the altitude demanded, and this would be contrived by means of centrifugal pumps, capable of maintaining air pressure at any given height. At 40,000 ft., for instance, the air pressure is reduced to a mere 2·72 lb. per sq. in. from a sea-level pressure of some 14½ lb. per sq. in. This great reduction in pressure means simply that oxygen alone cannot keep a crew alive, for at such a height the atmosphere itself is far too "rare" to force the oxygen naturally into the lungs. Air pressure, in short, has to be normalised.

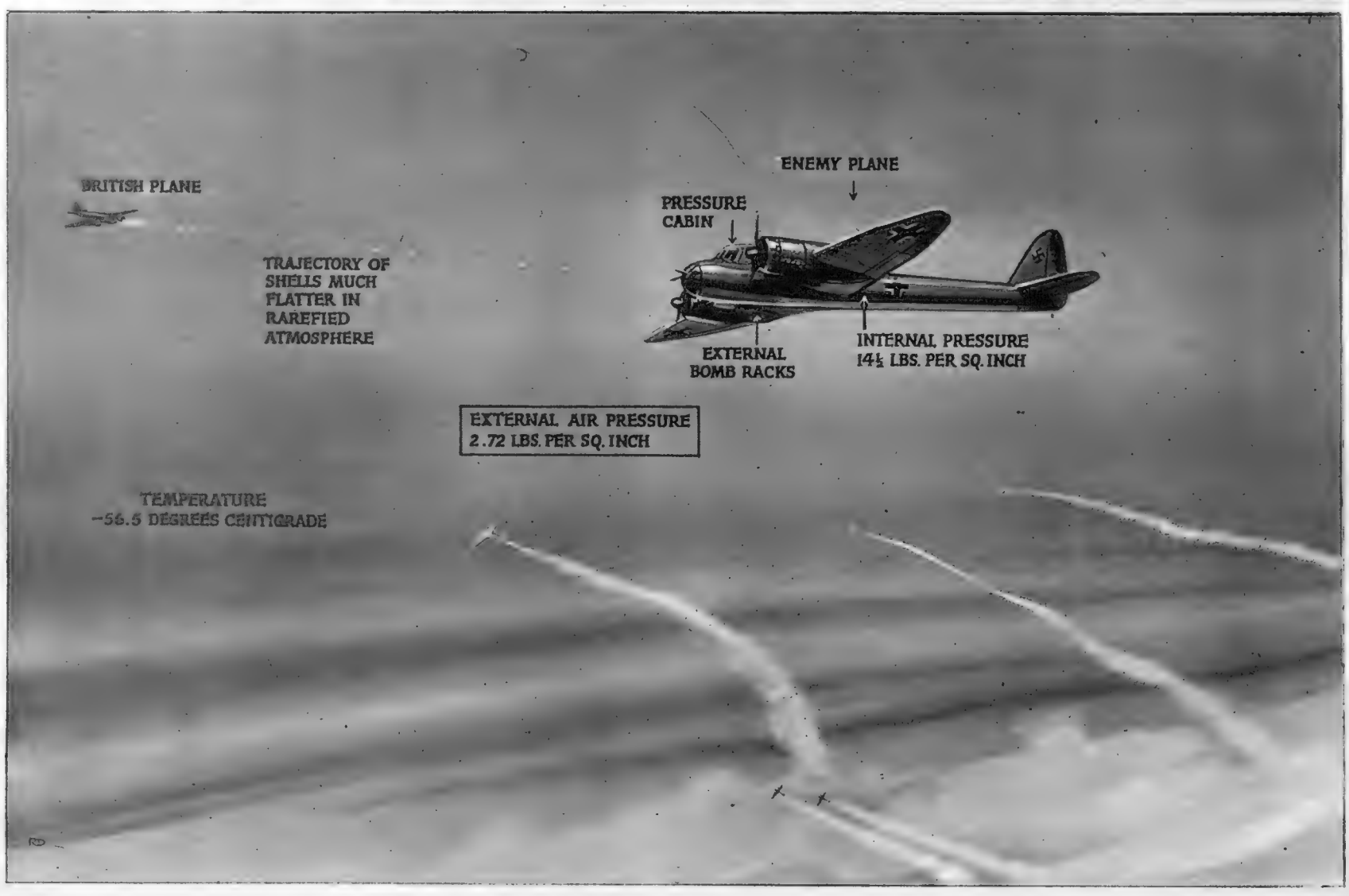
To achieve such a height, a bomber has to sacrifice weight, and weight is best sacrificed in the bomb compartments. The chances are that stratosphere bombers will carry only small-weight bombs. There will be no question of precision bombing, for atmospheric conditions generally will be against the bomb-aimer. It is conceivable that his bombs may fall several miles from the centre of a target area. Nor are there many days when such a bomber could take photographs from the stratosphere.

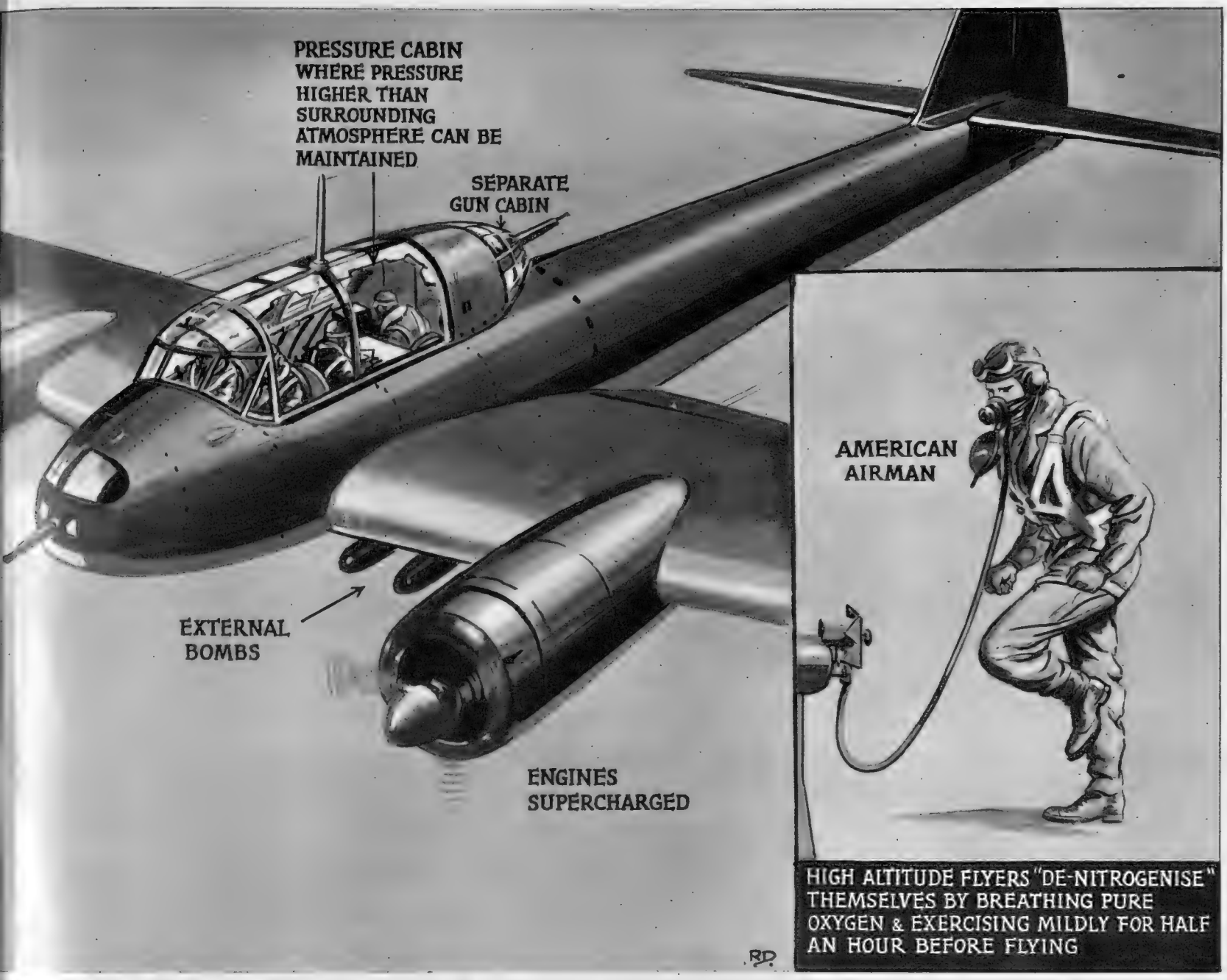
Of course, against such a craft, mere ground defences would be useless. But in the stratosphere itself, the cannon- and machine-gun fire of defending



***Below*—A LITTLE-KNOWN FEATURE CONCERNING COMBAT IN THE STRATOSPHERE**—*Drawing by Roland Davies*

When fighting takes place at a very great height—in the sub-stratosphere—the bullets and shells fired from an aircraft's guns follow a trajectory which is less curved than at lower levels: this is because of the more rarefied atmosphere, which offers less resistance to projectiles. At 40,000 ft., the external pressure would be 2·72 lb. per sq. in., against the 14½ lb. per sq. in. within the pressure-cabin of the aircraft: the temperature at such a great height would be −56·5 deg. C.





FLYING IN THE STRATOSPHERE: The pressure-cabin which must be used; when oxygen must be taken by pilot and crew; and the "de-nitrogenising" procedure before embarking on a flight at great altitude—*Drawing by Roland Davies*

The average man can maintain consciousness up to a height of about 18,000 ft., but oxygen is often used as low as 12,000 ft.; to maintain full efficiency during aerial manœuvre and combat above 12,000 ft., it would be advisable to have resort to the oxygen tube. Above 18,000 ft. oxygen must be used by all except the very toughest; at 25,000 ft., for example, if the oxygen supply is cut off, unconsciousness would come in about three minutes. With a face-mask for breathing the revivifying gas, the ceiling of endurance would be 40,000 ft.; beyond that altitude, a "pressure-cabin" must be used for the crew. This cabin permits the internal atmosphere to be maintained at a higher pressure than the surrounding rarefied air. Before taking off for a prolonged high-altitude flight, airmen "de-nitrogenise" themselves by breathing pure oxygen and exercising mildly for half an hour. In addition to all this, all high-flying aircraft must have their engines specially supercharged for the rarefied atmosphere in which they are to operate. The aircraft depicted here follows the design of an enemy Junkers aircraft

fighters become vastly more deadly. Owing to the rarefied atmosphere, and to the considerably lessened gravitational pull, the trajectories of shells and bullets fired at a great height are very much flatter, thus allowing for more accurate fire at greater ranges. While, at the same time, the missiles do not lose their muzzle speed so rapidly as at a lower altitude.

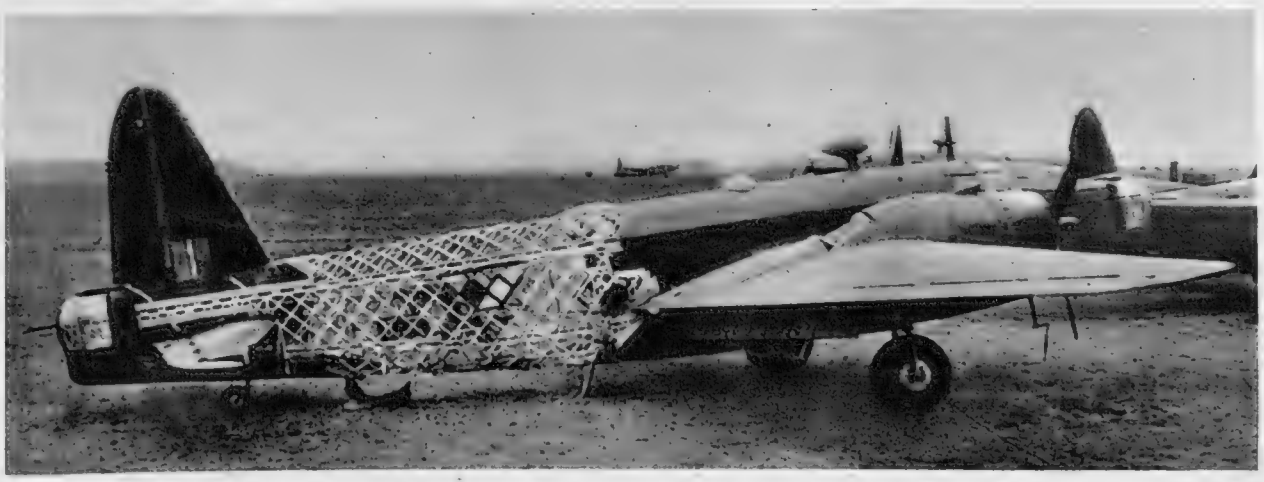
Consequently, damage from enemy fire in the stratosphere is much more decisive. A cannon-shell that tears a hole in a pressure-cabin spells a ghastly death for the occupants—unless they have reserve pressure-suits; such a hole, suddenly made, would let the denser air out of the cabin as from a ripped motor-tyre. The rapid change in air density would mean probably that the bodies of the occupants would burst, in the same way as would a fish brought suddenly from the nether depths of the ocean to the surface.

It is generally assumed, too, that in the stratosphere a pilot could not bale out from a damaged plane. Even if he had some means of leaving the plane, his body would explode unless it were encased in a pressure-suit entirely independent of the plane's internal mechanism. No bulkhead or door of the pressure-cabin could be opened to enable a mechanic to effect repairs to a damaged wing or body. To open such a door in the stratosphere would be to cause the plane to crumple up like a piece of cardboard, due to the enormous sudden change in atmospheric pressure.

It can be seen that the problems of stratosphere warfare are many and varied. But to have arrived in operational strength in the stratosphere at all means that some problems peculiar to the stratosphere have already been solved. Those dangerous air-bubbles which tend to form in petrol feeds at exceptionally high altitudes have had to be eliminated, for one thing. For another, a solution must have been found for the manipulating of cannon- and machine-guns and also bomb compartments in extremely low temperatures. One has to remember that, at about 36,000 ft., the temperature falls to something like —56·5 deg. C.

But, considered more widely, the effect of stratosphere flying on the course of the war in the air will depend necessarily upon the role stratosphere aircraft are forced to play in the general scheme of strategy. On the Russian front, it is doubtful if conditions favourable for stratosphere operations exist. That is why the squadrons of the new Me. 109G, under the command of the veteran German air commander von Lutzow, are reported as operating at no unusually high ceiling. But it is reported that the new fighters are using their advantage in speed and altitude potential to adopt *Staffel* tactics—in short, are employed in laying sky-traps, possibly for the new Russian T.B.7 heavy bombers and their fighter escorts. This is a favourite *Luftwaffe* trick, dating right back to the Red Baron himself.

However, what is certain is that the stratosphere has become a new three-dimensional battlefield.



BURNT OUT FROM BOMB-DOORS TO REAR-TURRET—How a Wellington returned from a Bremen raid

With the fuselage burnt out from bomb-doors to rear-turret, leaving nothing but its girders, this Wellington reached its own aerodrome after a raid on Bremen. Hit by anti-aircraft shells a few seconds after it had dropped its bomb-load, there was an explosion and the aircraft caught fire. The pilot immediately put it into a steep dive, while hundreds of sparks flew from it and burning pieces of fabric were torn from the fuselage. The speed of the dive put out the fire, and after evasive action the pilot and front gunner were able to straighten out and head for home. Their wireless set was damaged, the navigator had lost all his instruments, the rudder worked with difficulty, and the flaps were damaged: the rear gunner persisted in staying at his post at the end of the burnt-out fuselage. Over the sea, a Messerschmitt 110 was sighted, but the pilot's evasive action got them away. Losing height and limping, he flew on, found his own aerodrome, and made a safe landing

THE PROBLEM OF THE CHILDREN

One of the Most Difficult of the Many Wartime Problems Which Have Arisen on the Home Front

By CHARLES GRAVES

ONE of the chief problems on the Home Front is provided by juvenile delinquency. This was 30 per cent. greater in December 1941 than it was in peacetime. And there is no reason to suppose that there has been any drop during the past nine months. There is, equally, however, no reason to be an alarmist on the subject; and to say that it is a hideous menace is sheer nonsense. Really, it is natural that children in wartime should misbehave, in view of the new temptations that have been put in their way and the removal of the old safeguards. Quite apart from the call-up of so many regular policemen and the smaller experience of their War Reserve policemen, the diminution in boys' clubs and the decline in the Boy Scouts and other youth movements are bound to have an effect. Everyone realised how useful they were in peacetime. It is only reasonable that their decrease should have unfortunate results. Many of their buildings have been requisitioned or destroyed, and their leaders and Scoutmasters have joined the Forces. It is perhaps this latter factor which has been so largely responsible for the lessening value of boys' clubs.

Temptations are much greater when so many fathers are on active service, and so many mothers are doing munition work. There is also the question of evacuation. Many working-class parents do not keep in touch with their evacuee children. These children become bored with the countryside and feel that they are not wanted. If their parents wrote to them it would not be so bad. As it is, they forget that they have been removed in order to save them from the dangers of bombing. They think that they have been removed because their parents are glad to be rid of them. Any boy who feels he is not wanted is inclined to think that he must draw some attention to himself. Psychologists, I believe, call it "compensation," or something. That is where the trouble begins. Apart from this, the slum child is not bred to the country, and thinks that anything that is not enclosed by barbed wire or iron fences must be common property and can be taken with impunity. Yet another point is that the fresh air and sound food of the countryside are inclined to stir up the original Adam.

Whether the juvenile delinquents are in cities or in the countryside, they are all affected more or less by the spirit of adventure which is in the air. As a case in point, boys no longer go around in gangs. They go around in so-called Commandos. Of course, the root cause of all this juvenile delinquency is lack of family responsibility. If you break up homes you are bound to have lonely and unhappy children, and the naughty child is always the one who has been unhappy.

The black-out is a further contribution to juvenile delinquency. Then what about the temptations provided by air-raid shelters? However good the wardens in charge of them may be, there is always scope for delinquency of one kind or another. In the case of boys, stealing is the chief crime. But an appalling number of girls are coming up before the courts. If, during a "blitz"—whether it is a seaport town, cathedral city, or London itself—a girl has a tiff with her parents, she may well say that instead of going to the air-raid shelter which her family use, she will go to another one round the corner. Here she gets into trouble. Unfortunately, many young soldiers are of a keenly romantic disposition, and in the black-out they may not always bother to discover the age of the girl.

The girls, like the boys, find jobs easy and wages high. This tends to make them still less easy to control. There are actually cases of fourteen-year-old boys earning £6 5s. a week, and £3 a week for a boy of fifteen is by no means unusual. This is more money than their fathers have ever earned, and though, of course, these wages are an exception to the rule, the knowledge of them becomes widespread, and boys of fifteen will refuse to accept as little as 30s. a week because a friend of a friend of theirs is earning, say, £2 15s. a week.

Beer and whisky being an acquired taste, there is very little drunkenness among these juvenile delinquents; but there is any amount of gambling. This takes place mostly in amusement saloons and on the dogs; but there is a certain amount of money betted on racehorses as well. . . .

What about corrective influences? Well, unfortunately there is a noticeable shortage of accommodation in the approved schools, and sometimes boys and girls are kept waiting six months in a remand home for a vacancy at an approved school. These remand homes are not designed for such lengthy detentions. At the end of last year there were over 1,300 children, all committed to approved schools, waiting their turn in remand homes up and down the country.

We now come to the magistrate side of the question. How many of them have inspected even one approved school? And how many local authorities have any knowledge of approved schools outside their own district, apart from a short, descriptive paragraph in the Home Office directory? It would surely be better if, as in the case of Borstal, the court is merely required to commit the child to some central collecting centre from which, after a period of observation by a trained staff, someone with intimate knowledge of all the approved schools could transfer him to the one which seemed most likely to meet his particular needs.

Incidentally, the maximum period of detention is: (1) in the case of a child, until the expiration of three years from the date of the order; and if at the expiration of that period he is under fifteen years, until he attains that age; (2) in the case of a young person, if at the date of the order he is under sixteen, for the period of three years from the date of the order; and if at the date of the order he has attained the age of sixteen, until he attains the age of nineteen.

What is the solution to this problem of juvenile delinquency? The answer is simple—better juvenile courts. As John Watson, chairman of the Southwark Juvenile Court, points out in his admirable book, *The Child and the Magistrate*, Mr. Herbert Morrison made the following announcement in the House of Commons last year:

"There are 989 juvenile courts in England and Wales, and up to the present 792 have sent in their lists, which comprise the names of 6,995 justices (5,020 men and 1,975 women). The ages of the justices have been given only in respect of 600 of these panels, and a classification of the ages in five-year groups gives some very interesting results. Mr. Watson comments:

"It is disheartening to observe how little change has taken place in the proportion of elderly magistrates since the previous figures were published more than five years before. Thus the over-60's have risen from 57·7 per cent. of the total to 59·8 per cent.; the over-70's and the over-80's show a slight decline from 20·2 to 19·7 per cent. and from 1·8 to 1·7 per cent. respectively; while one grand old gentleman of 90 or more is *still* adorning the Bench. Or has another of the octogenarians grown up?

"Since November 1940 it has been a condition of the appointment of all persons as to the commission of the peace that they shall apply to be placed on what is known as the 'supplemental list' at the age of seventy-five. Justices who are placed on the supplemental list are no longer permitted to exercise any judicial function, but may continue to act in an administrative capacity, as, for example, by witnessing documents and signing forms. They may also retain the style J.P., which to some justices contemplating retirement is not so insignificant a factor as the ordinary person might suppose. It is, of course, open to the Lord Chancellor, on receiving such an application, to invite the justice to continue on the Bench. There are many who would like to have seen a much lower age specified, but an age limit of seventy-five is at least better than no age limit at all."

With Mr. Watson I conclude:

"'Take heed that ye despise not one of these little ones, for I say unto you that in Heaven their angels do always behold the face of my Father which is in Heaven.'"

A FORMER LAFAYETTE SQUADRON PILOT now serving with the U.S. Army Air Corps in Britain: Major Rufus Rand is a prominent business-man from the city of Minneapolis. During the last war he was a member of the Lafayette Escadrille, the French counterpart of the Eagle Squadrons of the R.A.F. of this war. He is one of six former members of the Lafayette Squadron now serving in the U.S. Air Force in Britain: with him in the above picture is First-Lieut. William Laidlaw, of New York City (on right). Both are watching from the control tower of a U.S. Bomber Station as Flying Fortresses were taking off to raid a Nazi factory at Meaulte in Northern France

BRITAIN AN ARMED CAMP

New English "Towns" Being Built for the Troops

AN IRIS HUT which will be used for storage purposes and as a workshop. This type of building has a framework of tubular-steel construction; it can quickly be erected by skilled workmen

RAILWAY-CONSTRUCTION TROOPS have completed 21½ miles of rail in three months. Two years would have been required to complete such a task in peacetime

TWELVE-CUBIC-YARD SCRAPER FOR ROAD-MAKING. It does the work of 0 men: its capacity is 400 ft. dug to a depth of 12 ins. in ninety minutes

he pictures reproduced above were taken during a recent visit to a typical camp town in the Midlands, which has been constructed almost overnight for the accommodation troops. Fifteen hundred soldiers—sappers and pioneers—and some 3,000 civilians are ployed on the job, including some of the specially-recruited "Mobile Squads" of ilders, who move from place to place as they are needed for urgent work. The oject comprises concrete roads, sewage mains, railways and a hospital with 750 beds: represents the largest single undertaking of its kind in the country. Amongst other hings, the construction of this camp town has entailed the laying of 18 miles of road, 33 miles of railway track, 18 miles of water mains and 18 miles of drains

THE NEW TOWN BEGINS TO TAKE SHAPE: A battery of concrete mixers at work on the foundations for more and more of the huts. Camps such as these are being constructed in many different parts of the country

BRITISH WAAFS SERVE WITH THE UNITED STATES AIR CORPS: Large numbers of the Women's Auxiliary Air Force, experienced in various Service trades, are now working with the U.S. Air Corps at stations in this country. The British airwomen have been loaned to the American forces until the first detachments of the American Women's Army arrive here. *On the left* a W.A.A.F. flight sergeant, employed in a U.S. office, is typing for one of the Airfield officers, Major Sovall: *on the right*, W.A.A.F.s are seen serving as waitresses in the U.S. officers' mess

AWAY FROM THESE WARS. . . .

Memories and Thoughts of the Years Between

—A Fortnightly Causerie **By J. G.**

***TRIVIA* FROM THE YEARS BETWEEN.**—In the late 1920's, I used to amuse myself with a commonplace book, jotting down, in what I was pleased to regard as epigrammatic form, my hasty judgments on aspects of our easy social life and my first experiences of (what was then new to me) country life.

The vulgarities, selfishness and snobbery of social life in the years between clearly impressed me unfavourably, even in the 1920's, as I can fairly judge from reading that old commonplace book from which I sometimes print selections on this page. I am glad to learn that my conscience was, even in those easy days, awake and touched. It amuses me now, after many years of experience of country life, to re-read my first impressions and discoveries of the country scene and rural industries.

In those days, even for a free-lance journalist, there was time and to spare in a country house for playing with ideas and playing with words, and I believe this commonplace book, on which the dust of years has gathered in a forgotten cupboard, represents a good deal of the truth as I saw it in that monstrous interlude between wars, and that, if the clothing be artificial, the sense of what I wrote down was, at any rate, sincere. It bears, at any rate, clear evidence of a disillusionment we have since gladly rejected. *Trivia* in this form are not to be despised by social historians in search of truth.

No doubt it was my design that the caption chosen for each *sententia* should be the cornerstone of the epigram, or an integral part of it. To the best of my recollection, I took great trouble with most of them.

A New Depression.—The ex-Service-men's concert dragged interminably on. Said the chairman: Ex-Bombardier Bloxam will oblige with an imitation entitled: The Curate at our Sale of Work.

The Snub.—We have been the owners of a dozen Rhode Island Reds since February. Week after week our hens have been smashing their own records. When one day I collected eleven eggs, I could not resist calling on my neighbour, Commander Bellasis, a recognised expert. "There's a dud in every dozen," he said, when he heard my news.

Poetry.—Till my twenty-fifth year I put poetry before prose. Middle-age convinces me that poetry is written by the young for the young. Shakespeare is the only exception I can find to prove my rule.

A Journalist's Experience.—If you want to evoke correspondence from your readers, sow your articles with obvious errors. The reading public is by nature too indolent to express praise or blame—though there is always an element of egotists who must snatch at any opportunity for self-expression. But even among the normal, few can resist the chance of putting an author right. When errors fail you, hint at a new device to ease the housewife's burdens. You are sure then of a bulging mail-bag. If you are out for trouble, mildly criticise some religious sect.

Radio.—Wireless has wrought a miracle in England in a bare decade. To-day, 14,000,000 Englishmen can recognise Beethoven by ear, and every yokel can at will switch on the Oxford manner.

Village Cricket.—Crossing the village green I met our Vicar, that strong tower. We stopped to exchange a word as civilised men will; and while we passed the time of day Mr. Huckaback with his stick cut an imaginary long hop to the boundary. Such exercises are catching. I played forward to a good-length ball, impressing the Vicar. "Cricketer yourself?" said he. "You're the very man for our team. We must enrol you at once." But I had already examined the pitch. "You must roll before you enrol," I said.

When the Censor Wilted.—Mr. Huckaback is a sane, clean, middle-aged clergyman and father, whose high character and rigid morality none would dream of impugning. But if some of his secret thoughts, those prurient fiends that will not be denied, were cast on the screen. . . .

The Pit that Ye Digged.—In the last judgment much will be forgiven Lord ——, that notorious press-lord. Nevertheless, the Devil is showing not the smallest sign of anxiety.

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

Incontrovertible.—"The sudden death of Lady Frome," wrote the famous gossip writer, "comes as a painful shock to me, more especially as only last week I had a long and charming chat with her at Newmarket." We shall never know now whether Lady Frome was more affected by the charm or the length of that last chat at Newmarket.

Is this Lady Boaz?—Crowned heads and other illustrious personages are magnets which irresistibly attract egotists and other lunatics with a craving for self-expression. The daily mail-bag of such famous persons often contains as many as half-a-dozen human documents, sometimes revolting, often pathetic, occasionally funny. A secretary of Royalty, engaged on his daily task, was one day rewarded by pulling from an envelope a photograph of a naked, black baby bearing beneath it the legend, "*Is* this Lady Boaz?" A week afterwards a second photograph of the same black baby was received, and this time the legend ran, "It *is* Lady Boaz." And then the impenetrable veil of oblivion descended on Lady Boaz and her creator. But her photograph is in my possession, revealing unmistakable evidence of the male sex.

DOGS TO GUARD BRITISH AERODROMES: Privately-owned dogs from all parts of the country are now playing a considerable part in the war effort. They have been recruited in response to an appeal for watchdogs to guard aeroplanes at aircraft factories, as well as for despatch-carrying and other duties. These three fine Alsatians are acting as R.A.F. watchdogs: Storm (centre) has already taken up official guard duties; two of her offspring—Irma (left) and Nugget—may soon be joining their mother in similar duties

Early One Morning.—Morning thoughts are cheerfullest, as a rule. Yet in middle-life a man may be forgiven if an irresistible wave of depression submerges him one morning at the calculation that he has shaved his face 10,500 times. That series of elaborate movements, exactly ordered in the light of practical experience, will be repeated in the normal course 7,000 times more, and then, like a worn-out machine, the man will be thrown into a pit to rot and be forgotten.

The poet likes to compare human life to a candle, a brief candle. Comparison with a stick of shaving-soap would be even more comfortless, yet the shaving-stick, cut on precisely the same pattern as the candle, is to-day an apter simile with which to compare the life of man. It is nothing but a series of shaves, an effort to keep up appearances as futile as remorseless.

The Point-to-Point.—The car park is a quaking bog; the wind is from the north-east and searching; the "good hunting country" is represented by a dozen little fences pruned down knee-high, only the last of which is visible from the "enclosure."

The local baronet and retired major-general, in neat gaiters, control affairs from the wagon, jostled by a quiverful of red-nosed daughters. The tipsters are seedier and the bookies more raucous than usual; the churned mud of the pasture is thick inlaid with patines of sucked orange. And Major Bilberry, with his hawk face and tooth-brush moustache, has come from Cheltenham to win three out of five events, at 7—4 on, riding highly-trained 'chasers which have been seen at three meets in the past season in charge of second horsemen.

Past Bearing.—There are three things, yea four, which are more than I can bear. A deserted seaside esplanade on a cold and wet day in summer, the cruet and stained tablecloth that typify an English Inn, an expensively trained soprano singing "I know a lovely garden," and the red neck of an ill-tempered general.

Gilbert and Sullivan.—Our Operatic Society opens next week with *The Mikado*. Why do people take endless trouble to do what others have done better—only too often?

Inflation.—Lady Ormonby [the Dowager] has one or two of the Colonial bishops, now attending the Conference, coming to her for the week-end after next. Will we "come over and help her? *Not* a big party." No. It is doubtless a gross case of inflation, but my price has gone up, indeed is constantly soaring. My price for one of Lady Ormonby's Sunday luncheons is far beyond her means.

A Long Winter Evening.—Nine of us, men and women no longer in the bloom of youth, we sat down one winter's evening at a long table remote from the fire to play vingt-et-un for pennies. It was necessary to have constant recourse to the bank to replenish supplies of fishes, and questions of accountancy often delayed the proceedings. Always one was dealing or shuffling, always one's feet grew colder and one's face hotter. I can understand and excuse gambling, but not playing at gambling. Have we, after all, increased so greatly in wisdom and stature since the days when Tom Moore's ballads and albums containing views of Venice supplied the long evenings with gaiety and colour?

Wanted, a Whipping Boy.—After the long, long winter the first spring holiday for the millions toiling in factory and counting-house came round at last. For four days the rain poured down from a grey, cold, pitiless sky, and all the countryside was a sodden sponge under a damp towel, and the roads long black ribbons of watered silk. On the fifth morning, when factory and counting-house reopened their doors, a genial sun shone from a deep blue sky and the cuckoo called from the fir-clumps. What makes it worse is this: we have grown accustomed to blame someone or something (usually the wrong one) for every misfortune which befalls us or our country, and here is a misfortune for which ingenuity can find no whipping boy. You cannot curse God or deface the Family Bible with obscenities. That were too ridiculous; and it is by no means certain that Divine intervention can be induced to influence barometric pressure.

COTTON "SANDALS" FOR MOTOR-CAR TYRES IN THE UNITED STATES: A stout cotton fabric sandal, stretched over a worn car tyre, is America's latest offering to motorists. According to the United States Rubber Company, this sandal has a heavy surface pile; when treated with an asphalt emulsion to resist road and weather conditions, it will last for about 3,000 miles—when it may be replaced. The sandal is made of materials not required for warlike purposes, and it can be turned out in quantity on the looms of rug factories, most of which are idle in the United States to-day because of munition and armament requirements. A sample of the tyre sandal, before being treated with the asphalt emulsion, is being shown in the picture above

The Shaftesbury Homes and "Arethusa" Training Ship

At a recent little prize-giving at the London Technical School, much praise was given by the examiners of the shoemaking and tailoring, with the commendation: "These boys should make good craftsmen and be certain of good constant work in after life." Please send a gift. Address: 164, Shaftesbury Avenue, London, W.C.2.

"VERNALISING" the WHEAT CROPS

And other recent pictures from the British Home Front

WOMEN IN THE LONDON GASWORKS : In common with other big utility undertakings, the South Metropolitan Gas Company is now employing a number of women to take over the jobs of men who have been called up. Here is Mrs. Yeo, whose husband is in the Army and who has three children under thirteen years of age. Before the war she worked in a hair-cream factory : now she is seen backing up a charge of coal

THE WEEKLY OUTING OF THE CARTHUSIAN MONKS : These monks, from Cowfold Monastery in Sussex, are taking a quiet stroll along the main Horsham Road. Their weekly walks extend for ten miles through the English countryside. The Carthusians first built the Charterhouse in London in 1371. Their habit includes a hair-cloth shirt and cowl. It is to them that connoisseurs owe the invention of the liqueur known as Chartreuse, which is still kept as a close secret of the Order

THE OYSTER SEASON OPENS : Fishermen on the Royal Whitstable Native beds hauling in their catch. The oyster will not be too plentiful this season

DREDGERMEN AT WHITSTABLE EXAMINING THEIR CATCH OF OYSTERS : Although oysters figure as a distinct luxury on a wartime menu, the Ministry of Agriculture and Fisheries have been reluctant to rule them out altogether, due to the fact that oysters need an immense amount of care and, once neglected, the beds are not easily put into production again. The men who dredge the Royal Native beds at Whitstable are all expert oystermen ; in many cases their families have been at this job for centuries

A PROFESSOR EXAMINES AN EAR OF BARLEY : All the food materials required are supplied in gelatine. The embryo grows into a young plant. Success depends on keeping the embryo free from microbes from the start

Vernalisation is a method of hastening the earing of cereals and other plants by allowing the seed to sprout at low temperatures : it tends to benefit agriculture enormously. It is now the subject of important experiments at East Malling Research Station by a group of workers under the direction of Professor F. G. Gregory, F.R.S. Every farmer knows that it is useless to sow winter wheat late in the spring, since it yields no harvest ; but if winter wheat is kept cold until the spring it can produce a crop in spite of its late sowing. This is the basis of "vernalisation." The grain is allowed to sprout and is kept chilled for periods up to eight weeks, after which the "vernalisation" is complete. In the case of autumn-sown crops, of course, this chilling of the grain or young plant occurs naturally during the winter months

PROFESSOR GREGORY EXAMINES "LITTLE JOSS" UNVERNALISED WHEAT, growing between its vernalised counterpart (on right) and vernalised "April Bearded" (on left)

The World of Books—By Vernon Fane

WORDS, DEEDS AND FICTION

A Stylist's Anthology; Brilliant War Reporting; Fascism in the Sun; An English Miss in the Czardas

I DON'T like anthologies. There is almost nothing to be said in their favour, except by those compilers and publishers who make a good thing out of them. For the lazy-minded they provide what look like short cuts to that to which there is no short cut. They jangle the poets uneasily together: they tear prose from its context and swing it against the stream of another rhythm.

Mr. Ivor Brown's A WORD IN YOUR EAR (Cape. 6s.) is an anthology, but with that word its resemblance to all other anthologies ends. For it is, simply, a collection of words. Words "which have caught my fancy during my casual wartime reading" and set down in a method that has been "simple, personal and vagrant."

Mr. Ivor Brown has for many years been a rare example of journalist who has combined success with dignity and good taste. His style is lucid and almost deceptively simple. If he has a mannerism (and what great stylist hasn't?) it can be found deep in the heart of Shakespeare. At least it will never be able to be said of him that a weary reader might be found gathering wild adverbs upon the north-west slopes of his Sunday article.

If I begin presenting samples of these words, which range from "browned-off" to "yerk," it would be difficult to know where to stop. I have chosen the following because it is short:

PUDGE

> A PUDGE is a stout and puffy man. It is also a muddy puddle and good either way. John Clare liked pudge and the epithet pudgy, for his winter-landscapes. Among his Asylum Poems (this one so sanely observant and serene!) is,
>
> Little trotty wagtail, you nimble all about,
> And in the dimpling water-pudge you waddle in and out.
>
> Nimble, as a verb, is nice.

Indeed it is, Mr. Brown; and so is your anthology.

Mr. J. L. Hodson's WAR IN THE SUN (Gollancz. 11s. 6d.) is the only war book I can honestly say I have enjoyed. Others I have read with interest, even with excitement, but none with the enjoyment that comes from personal contact with a vigorous, fresh and pugnacious personality. Mr. Hodson has looked the war in the face on nearly all the battle-fronts and hates it every bit as much as I do, and for the same reasons.

The human equation is never absent from his most exciting descriptions, and he never loses touch with fundamental issues.

It is a very long book (200,000 words) in diary form. In the accomplishment of distance alone it is a tremendous Odyssey. He sails on a troopship to South Africa, flies to Cairo, campaigns with the 8th Army in Libya, participates in naval engagements in the Mediterranean, flies with the R.A.F. in the Desert, takes part in a bombing raid on Crete, spends a week in besieged Tobruk, and lands in Rangoon ten days before we got out. The journey home from there, by way of India, Egypt, the Congo and Lisbon was not without incident either.

The physical and mental strain alone must have been terrific (there were despatches to write and send as well as this diary to keep), but the bite and the punch never flag. "Too many women travel on these aircraft" is a homeward Lisbon entry.

He questions everybody and everything, pokes his nose in everywhere, prods at the pompous, debunks the grousers and argues with the most unexpected people about unexpected things. Through it all runs the thread of brilliant reporting. Men fighting on sea, land and air are sharply focused in unforgettable action, and the comment, the question, the character sketch, fall naturally into place.

We would not be in the fourth year of this war if there were not a record of past mistakes, frustrations, set-backs and mismanagement to be set against a smaller tally of success, an unflinching one of courage, endurance and belief in the justice of our cause. Mr. Hodson not only has the spiritual resilience to probe these things without aggravation, but has the will to resolve them in terms of faith in the common man, through whom, by whom and because of whom this war must be won.

Miss Elizabeth Delehanty's ARISE FROM SLEEP (Heinemann. 8s. 6d.) is a good, if not an exceptional, first novel. It is too easy to hail a book from a fresh and lively pen as having far more merit and far more originality than it really possesses, because every first novel must have some of those qualities and because, with reviewers, a thirst for new talent is a kind of occupational disease. But Miss Delehanty's book is still worth reading, after the coolest analysis, and I recommend it to you for your list.

The opening days of the present war are its not unusual theme, and a Genoa-bound liner and Italy itself the background. It is a story with a good deal of suspense in its composition, and suspense is not the easiest of emotions to convey. The Italians who dog and bedevil the lovely American heroine are clear-cut Fascist types—using "fascist" in its most closely Italian sense—and are just as sinister, just as inconsistent and just as finally ineffectual as one would like to suppose.

The lady herself has long, long thoughts that dwell on other things than her beauty; she is a sensitive, thoughtful creature, and, even in love, not entirely a creature of instinct. Her home-sickness for a remote American countryside is lightly indicated in contrast to the burning Ligurian scene, and, solely from the point of view of technique, is a sign of what subtleties of writing Miss Delehanty may one day achieve, when she has forgotten that she ever read a book by a man called Hemingway.

There is humour here, too, of a sly kind that rarely finds expression in the dialogue. "Mr. Paganini saw Paula put out her slim brown fingers and clasp the hand of the young man. Mr. Paganini shuddered. Certain Anglo-American habits were painful to witness. This disgusting convention of shaking hands had done more, in Mr. Paganini's opinion, to consolidate Anglo-American relations than any number of trade agreements."

First novels, however sprightly and commendable, often have distressingly poor sequels. I don't feel that this need be true of Miss Delehanty's next book, and I look forward to it with interest.

BUT WE ARE EXILES (Peter Davies. 8s. 6d.) is yet another novel concerned with the effects of war on travellers in Europe. Miss Elisabeth Kyle has chosen an uncommon aspect of this situation and treated it with imagination. An English girl goes out to Vienna as governess, shortly before the last war, finds employment with a Hungarian family, living a feudal and rather isolated life out on the Hungarian plains, and stays with them to the end of her life.

The pattern, stated so badly, seems to lack incident. There have been faithful governesses and old retainers before, even *ad nauseam*, and particularly in fiction. But there is another angle to this, and a more poignant one. An Englishwoman who makes her home in a country as foreign as the Magyar country would always have a great deal to which to adapt herself; if, as in the case of Miss Kyle's young governess, she lives through two wars there, among her enemies, she would have to be a very remarkable person to survive, and to keep her balance.

Pearl Fawcett achieves this in what is, after all, the simplest and most direct way: she comes to identify herself completely with the country of her adoption, and more exactly with the family of her choice. After twenty years, although she scarcely realises it herself, she has become more Hungarian than the Hungarians. Her inarticulate loyalty to England remains, but it is dormant.

Not until the present war does she find where her ultimate devotion lies, and she goes to her death for rescuing an English airman who has made a forced landing near by.

Miss Kyle obviously knows the country she writes about with such sympathy, and she describes it with admirable detachment and judgment. Her style is measured and calm, and she has given us a novel well worth reading.

WASTE-PAPER SALVAGE

WHAT SMALL AMOUNTS OF WASTE PAPER CAN BE CONVERTED INTO

Weights—	6 daily newspapers	4½ ozs.
	6 weekly periodicals (average)	10 ozs.
	2,500 books (average)	1 ton
Weights—Munitions:		
	Bomb interior container	4 lb.
	Small cylindrical shell container	2 lb.
	Box for aero cannon shells	15 ozs.
	Gun fuses	5 ozs.
	Interior component for mine	4 ozs.
	Box for ·303 cartridges	1 oz.
	Aero-engine dust cover	¾ oz.

The New London Plays

Reviewed by PHILIP PAGE

WALTZ WITHOUT END.—The success, years ago, of *Lilac Time*, now enjoying yet another revival, has had one unfortunate sequel. To that play Schubert's fascinating melodies formed the accompaniment, and the chief character in it was Schubert himself (to whom, incidentally, it was not either necessary or possible to pay any royalties). So why not do the same with Chopin, or for that matter, with any other famous composer? In *Waltz Without End* at the Cambridge Theatre, we had, sure enough, Chopin—both visually and musically. The production is lavish, there is an excellent ballet, and so many people seemed to like the show that the fact that for me it was a considerable ordeal is probably quite unimportant, though I found quite a number of sympathisers. My point of objection is not that Mr. Ivor Sheridan, who took the part of the composer, does not resemble him, nor that Chopin's music should have been harnessed to a somewhat common-place musical-comedy. *Waltz Without End* is, musically, one long liberty. And in the name of this liberty what crimes were committed! A story full of false sentiment and utter banality in the matter of humour did not help.

Miss Jane Carr sang well.

IN "WALTZ WITHOUT END," at the Cambridge Theatre: Ivor Sheridan as Chopin and Jane Carr as Wanda in Act II of the new musical play reviewed by Mr. Page here

The Merchant of Venice.—That skilled and ardent Shakespearean, Mr. Robert Atkins, has for so long been playing Shakespeare in the open air, and usually in the rain, that, of course, it *would* happen that his revival of *The Merchant of Venice* at the Westminster opened on a night as glorious as any in June—a full moon in a cloudless sky. One thought again in the street outside of the exquisite beauty of those lines in Act V—"In such a night," etc."

Beautiful, too, was the performance, with not a weak spot anywhere. Miss Adèle Dixon, good both to look at and to listen to, is a Portia of remarkable charm. Since some wise people have hailed her as a welcome recruit from revue, etc., it is as well to make it clear that Miss Dixon was playing important Shakespearean parts at the Old Vic some time before she appeared in musical shows. Mr. Atkins's Shylock is as good as any I have seen—that means dozens—and better than most. Miss Helen Cherry was exquisite as Jessica. Mr. Michael Martin Harvey did his best with the usual *falsetto* clowning; I am always sorry for anyone who has to try to be funny as Launcelot Gobbo.

House of Regrets.—Probably no nation is more conscious than the Russians of the contrast between the old and the young generations, neither of which understands the other. Mr. Peter Ustinov makes this very clear in his brilliant play, *House of Regrets*, at the Art Theatre. Being only about twenty himself, he paints the old Tsarist *emigrés* in a Kensington house largely as grotesques. But we are allowed to see the pathos of them too. It was not the fault of the author that, in a scene in which these folk celebrate the ancient Russian Easter, the words "Christ is Risen" were greeted with titters and sniggers; it was the fault of a rather Left-Wingish beards-cum-Bloomsbury audience. A brilliant play, brilliantly acted, particularly by Miss Lalage Lewis, who put "oomph" even into soap-box rhetoric.

By Appointment

ON THE LOOK-OUT

Those who recognise real character and flavour in Scotch Whisky are always on the look-out for "Black & White". Its quality is of the highest, its flavour unexcelled.

"BLACK & WHITE"

It's the Scotch!

"Rodex"...

EXCLUSIVE TO DEBENHAMS

This is a pre-austerity design in super-quality wool and camel-hair, lined throughout, perfectly tailored. In camel only, and three sizes.

(18 coupons) **£14 . 1 . 6**

Debenham & Freebody

Langham 4444 WIGMORE STREET, LONDON, W.1 (Debenhams, Ltd.)

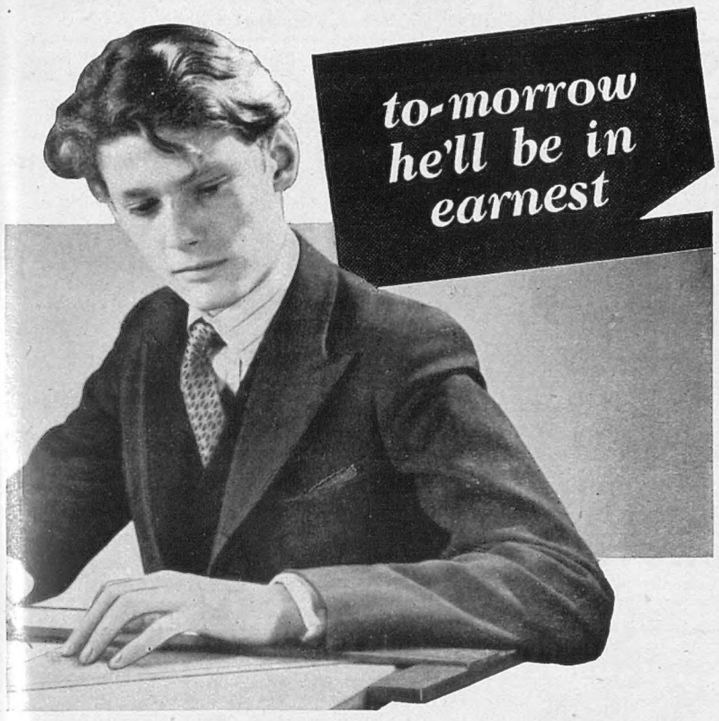
1742 — 1942

WHITBREAD

& CO. LTD.

Brewers
of ale and stout
for two centuries

Advert. of THE EDISON SWAN ELECTRIC Co. Ltd., 155 Charing Cross Rd., London, W.C.2 (L.26)



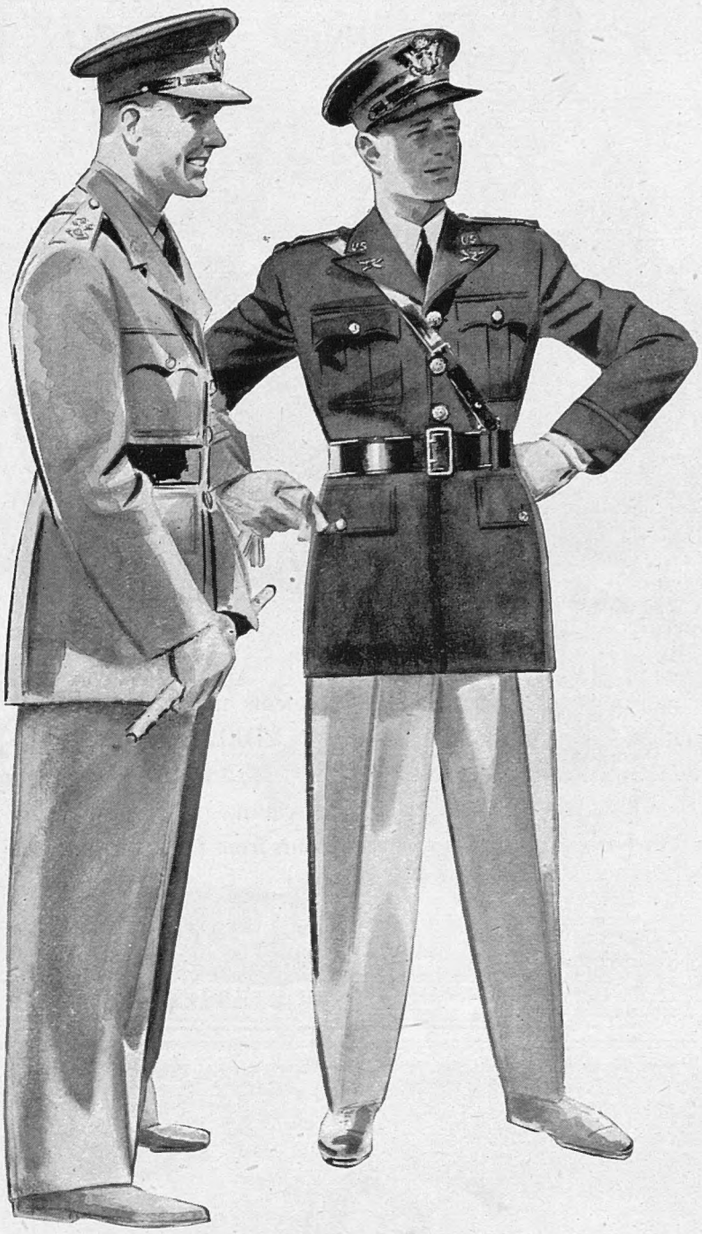
His Dad says he's a bright boy with a bright future. But what are his chances of real success? Will he have the opportunity of taking up a career which offers good prospects or will he find himself in a dead-end job — a job uncongenial, unsuitable and uncertain?

Your lad's design for living needs your help. You can lay the foundation stones of his future success now — by saving. Save regularly each week. Save till it hurts — and each week save more than you saved the week before! Cut down your spending even on "necessities". Every penny buys guns, planes, tanks and ships to-day: every penny will help your lad's position in the exciting world of To-morrow.

Secure to-morrow by saving to-day

Savings Bonds. National War Bonds. Defence Bonds. National Savings Certificates. Post Office and Trustee Savings Banks.

Issued by The National Savings Committee



That's what we call Service

American officers in Britain are discovering that the scope of the Austin Reed service includes an accurate knowledge of all the details of United States uniforms.

AUSTIN REED

103-113 REGENT STREET, W.1

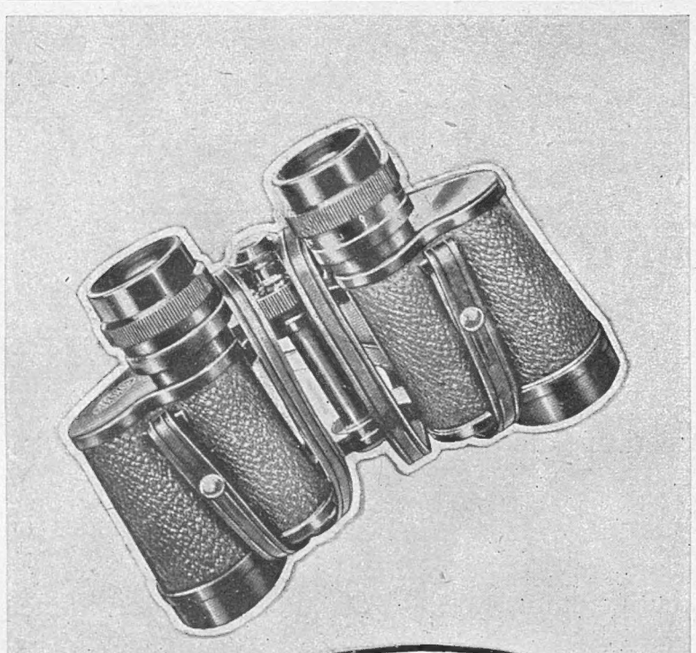
77 CHEAPSIDE · 13 FENCHURCH STREET · 135 VICTORIA STREET

Bath, Belfast, Birmingham, Bournemouth, Bristol, Edinburgh, Glasgow, Harrogate, Hull, Leeds, Liverpool, Manchester, Norwich, Nottingham, Oxford, Sheffield, Southampton. *Also at* Aldershot, Amesbury, Barmouth, Bothwell, Coventry, Dunbar, Grantham, Hove, Llandrindod Wells, Llandudno, Plymouth, Richmond (Yorks), Shrivenham.
London Telephone: Regent 6789.

Going somewhere where kit replacements may be out of the question? The officer who chooses 'CLYDELLA' Service Shirts needn't worry. These shirts will wear and wash and keep their smartness on parade throughout the toughest campaign. In Navy, Army and Air Force regulation styles and colours from 15/3, collars extra. 'Clydella' Service ties 2/5. Stocked by high class hosiers and outfitters everywhere.

WILLIAM HOLLINS & CO. LTD. DAY & NIGHT WEAR VIYELLA HOUSE, NOTTINGHAM REGISTERED TRADE MARK

"Clydella" SERVICE SHIRTS



KERSHAW

Kershaw's Famous Prismatic Binoculars, British all through—the world's standard of quality—will be available again at a later date

SOHO LIMITED
COLHAM MILL RD., WEST DRAYTON, MIDDLESEX
(BRANCH OF A. KERSHAW & SONS LTD.)

IN QUEST OF GOOD HOTELS

ADVICE BY ASHLEY COURTENAY

Letters, accompanied by a stamped, addressed envelope for reply, should be addressed to him c/o The Editor, THE SPHERE, *Commonwealth House,* 1, *New Oxford Street, London, W.C.*1.

BOURNE HALL HOTEL, BOURNEMOUTH

Offers shops, scenery and plenty of sunshine. Provides admirable quarters in a central position. Bridge, Billiards, Warmth and plenty of breathing-space. Resident Directors: Mr. and Mrs. R. J. Bray. From 5 gns.

THE NORFOLK HOTEL
BOURNEMOUTH

Traditional superiority. Combines all the factors that one expects to find in a first-class hotel, Restaurant, grill room, men's bar, Richmonde Lounge—the social rendezvous of Bournemouth—with The Norfolk Hotel Broadcasting Orchestra. Apartments each with P.O. telephone and most with private bathroom. Tel. 7272 every room. *Resident Directors:* Mr. and Mrs. F. J. McInnes.

CREST HOTEL, CROWBOROUGH, SUSSEX

Interprets the dictionary definition of the word comfort: "To cheer, revive, ease, quiet enjoyment, freedom from annoyance, a subject of satisfaction."

COSY FIRST-CLASS HOTEL
SHORE HOTEL EAST WITTERING, Nr. Chichester

(Fully Licensed—A.A.***). Autumn Terms 5 to 7 gns. Trio under the direction of Jack Long, the well-known 'Cellist. Tel.: West Wittering 3245.

Westward Ho? Spend a night or more at
The ROYAL CLARENCE HOTEL, Exeter
in the quiet of the Cathedral Close

WEST LODGE PARK HOTEL HADLEY WOOD, Near Barnet, Herts.

In the heart of the country, yet but half an hour from Piccadilly Circus to Cockfosters. A country house of character and charm. Sixty acres of ground and not a roof in sight. Golf course at the drive gates. Proprietor: B. Victor.

COMPLEAT ANGLER HOTEL, MARLOW

With its reputation for providing as good a Cuisine and comfort as war-time restrictions permit, this first-class hotel on the River offers Winter Residence for the man who has to regularly journey to Town, as well as Recreation and Rest for those who would enjoy their 48 hrs. or longer LEAVE. Tel.: Marlow 15.

MOOR HALL HOTEL, NINFIELD, Sussex

Here, 250 ft. up, facing due south, you can get a break from war routine. Fresh produce from our own farm and gardens. Fishing and rough shooting. Club licence. Trains met Crowhurst or Bexhill. From 4 gns. Tel.: Ninfield 330.

QUEEN'S HOTEL, PENZANCE

We face the South, the sun and the sea. We offer modern amenities in our 60 bedrooms. We have a lift and are fully licensed. Bathing, boating, tennis and golf can still be enjoyed. A pleasurable spot for your break from war work. Tel.: Penzance 471. Terms from 4½ gns.

WILLIAM AND MARY HOTEL 34 bedrooms (18 in the Guest House) PARTICULARLY CATERS FOR THE SERVICES AND WAR WORKERS. First-class Restaurant open for Non-Residents. Attractive Club Cocktail Bar. Good rail facilities. Tels.: 2575, 203911 **STRATFORD-ON-AVON**

GROVE HALL HOTEL, TWYFORD, Berks.

I particularly recommend this hotel to those who have to journey to London daily. Only three-quarter-of an hour from Paddington and two minutes' walk from the station. It's attractively situated in its own park, and every bedroom has its private bathroom. 6 gns. weekly. Tel.: Twyford 106.

HEADLAND HOTEL
TORQUAY

Though often full, it is an hotel to make a note of should you wish to enjoy quiet luxury mids peaceful surroundings. The Management will welcome advance enquiries.

AND HERE IS PEACE . . .

An hotel of dignity and charm set in a healthy position 400 feet up, facing the sun and the South. Surrounded by 60 acres of parkland with sporting golf course. London under an hour by train.

THE SPA HOTEL ROYAL TUNBRIDGE WELLS

Telephone: Tunbridge Wells 1911

CLEMATIS COTTAGE HOTEL, WASHINGTON, Nr. Worthing

A haven of content and character for a week-end or longer in the fold of the Sussex Downs. Noted for the discerning people who repeatedly stay there. Easy access to the West Sussex Golf Club at Pulborough. Inclusive terms from 4 to 4½ gns.

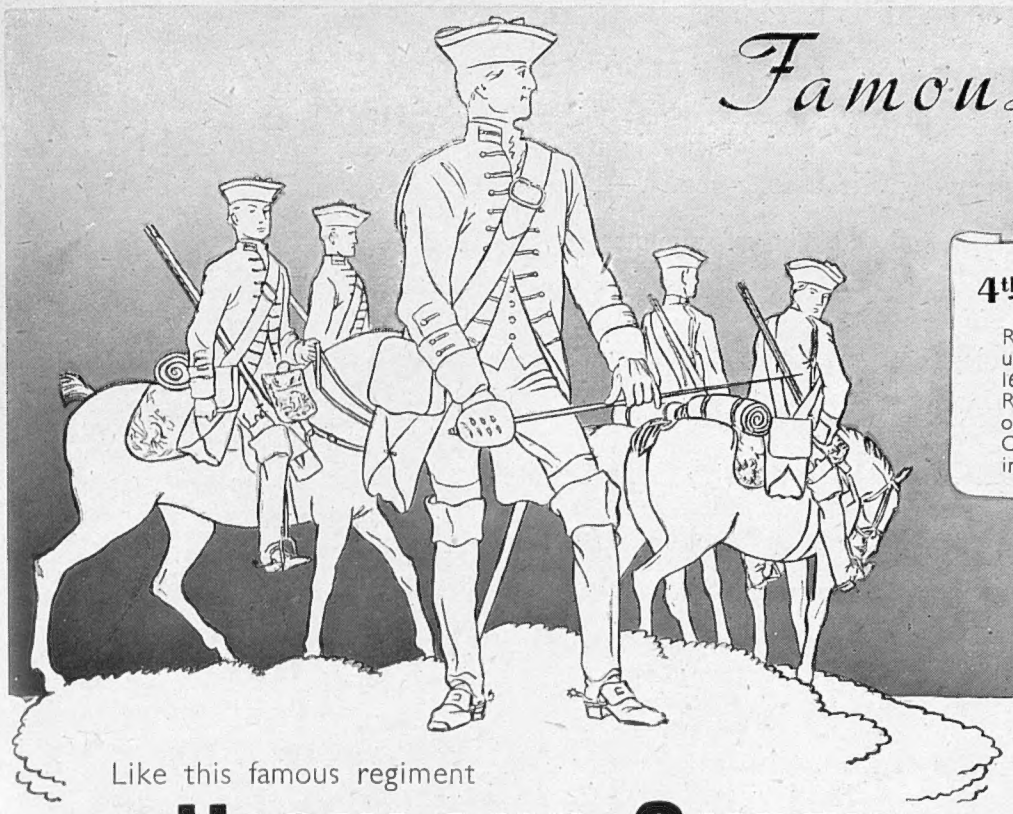
Welcome Always – keep it handy

GRANT'S MORELLA CHERRY BRANDY

P.S. Stocks still available – but restricted

PRINTED IN ENGLAND by THE ILLUSTRATED LONDON NEWS AND SKETCH, LTD., Milford Lane, London, W.C.2; and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., Commonwealth House, 1, New Oxford Street, London, W.C.1. SATURDAY, OCTOBER 17, 1942. Entered as Second-Class Matter at the New York (N.Y.) Post Office, 1903.

Famous QUEENS



4th (The Queen's Own) Hussars

Raised independently and regimented under Col. the Hon. John Berkeley in 1685 as the Princess Anne of Denmark's Regiment of Dragoons. In 1788 it was ordered to adopt the title Queen's Own Dragoons. Made Light Dragoons in 1818 and became Hussars in 1861.

Like this famous regiment

HIGHLAND QUEEN

GRAND LIQUEUR SCOTCH WHISKY

was originally produced independently but, unlike it, the Distillers have consistently maintained their independence up to the present day. "HIGHLAND QUEEN" still is, as it always was, a Blend of the Finest possible Whiskies produced mainly from Distilleries owned and controlled by the Proprietors of this famous Whisky.

MACDONALD & MUIR. LTD., LEITH, EDINBURGH. *Distilleries:* GLEN MORAY—GLENLIVET, MORAYSHIRE and GLENMORANGIE, ROSS-SHIRE.

A.A. & SUBMARINE DEFENCE

As keen as

3d. each
including Purchase Tax

Keep an alert eye open for "Eclipse" Blades—now made only in the popular slotted pattern. Their clean and comfortable shaving is even more appreciated now that supplies are so limited.

Obtainable only from Retailers

JAMES NEILL & CO. (SHEFFIELD) LTD.

Stand easy!

IN

AERTEX

UNDERWEAR

Planned Parenthood

A brief summary of Medical Literature and recommendation on the subject . . . 3p

Endorsed by the Medical Profession

GYNOMIN

REGD. TRADE MARK

ANTISEPTIC TABLETS

British made by Coates & Cooper Ltd., Northwood, Middlesex.

★ **Brochure B. 26, "*PLANNED PARENTHOOD*," sent in plain sealed envelope on receipt of 3d. in stamps.**

OF ALL LEADING CHEMISTS

Don't use light unless you must —and remember

MAZDA

LAMPS

provide it with the utmost economy

Mazda Lamps The Nation's Light

Made in England by 3958
The British Thomson-Houston Company Limited

Tri-ang TOYS FOR GIRLS AND BOYS

FROG MODEL AEROPLANES

Pedigree PRAMS & FOLDERS

All the best babies have them

Pedigree Pets DOLLS AND SOFT TOYS

LINES BROS LTD
LONDON

WARDONIA BLADES

For Better Shaves

SMALL PACKET 1'-
LARGE PACKET 2'6
PLUS PURCHASE TAX

FIT ALL 3-PEG RAZORS

ASK FOR THEM AT N.A.A.F.I CANTEENS

SAUCEPANS MADE SPITFIRES—OLD BOOKS MAKE SHELL CASES. TURN THEM OUT NOW—THE NEED IS URGENT!

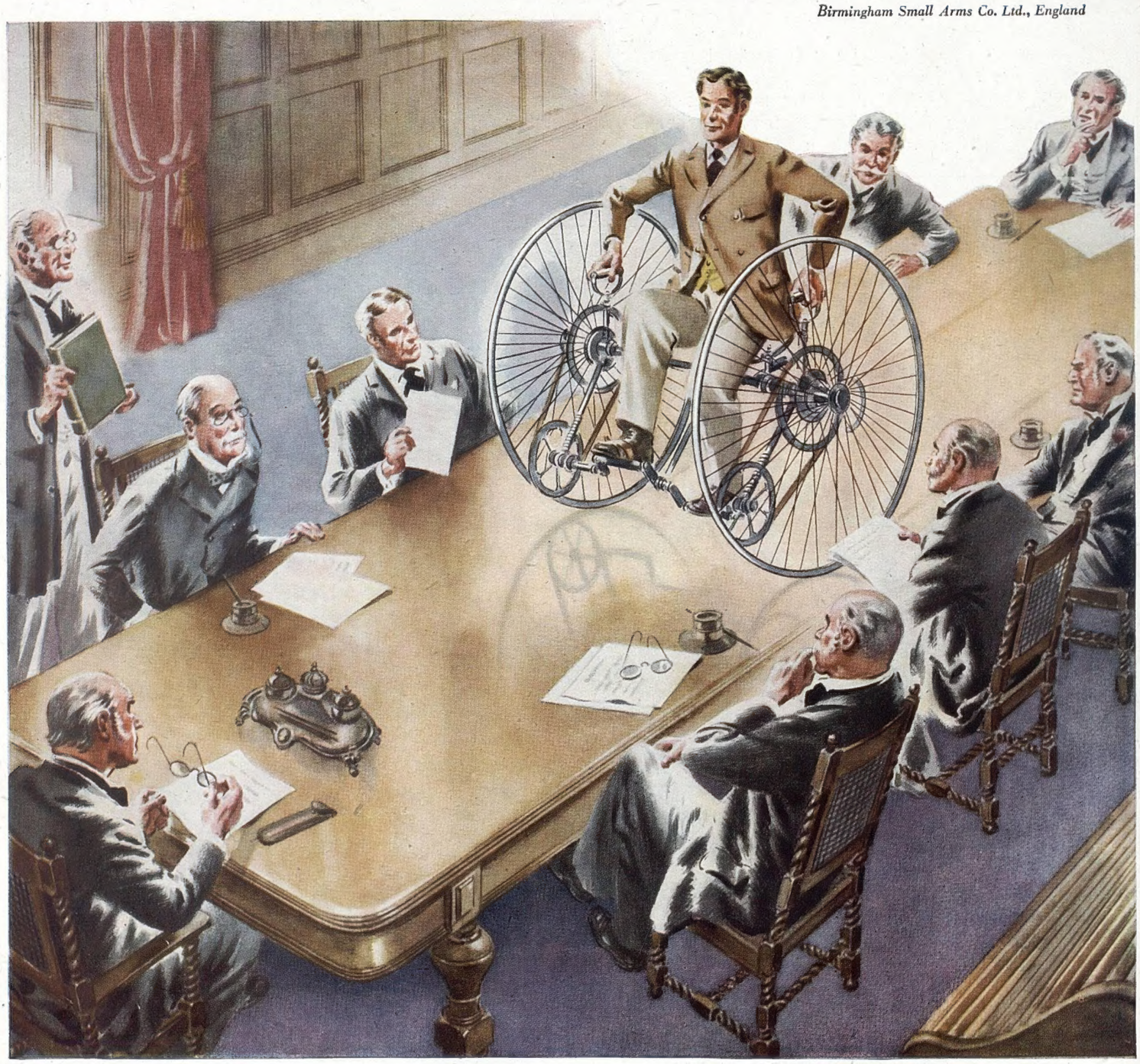
TIME: 1880. Scene: The Boardroom of B.S.A. The Directors have assembled to see a demonstration of the "dicycle", the latest development in road transport. Enter Mr. Otto, the inventor. He does not make a long speech—he simply lifts his machine on to the boardroom table, climbs up himself, mounts it, rides backwards and forwards, explains its points . . . The demonstration over, he descends to the floor, re-mounts, and rides his "dicycle" down the stairs and out into the street. The far-sighted Directors of B.S.A. had been impressed; and a few months later they began to make the Otto Patent Safety Dicycle.

The spirit of initiative that stimulated the B.S.A. Directors to interest themselves in Mr. Otto's invention belonged equally to those other directorates that launched Daimler and Lanchester Cars—that led B.S.A. to develop B.S.A. Bicycles, Motor Cycles, and Cars. That same spirit of initiative is alive and alert today; it will present to the post-war world products in the van of development in every field covered by B.S.A.

B.S.A. Guns Ltd. ● B.S.A. Cycles Ltd. ● Wm. Jessop & Sons Ltd. & J. J. Saville & Co. Ltd. ● Daimler Co. Ltd. ● Lanchester Motor Co. Ltd. ● Transport Vehicles (Daimler) Ltd. ● B.S.A. Tools Ltd. & Burton Griffiths & Co. Ltd. ● Monochrome Ltd.

BSA

Birmingham Small Arms Co. Ltd., England



PRINTED IN ENGLAND by THE ILLUSTRATED LONDON NEWS AND SKETCH, LTD., Milford Lane, London, W.C.2, and Published Weekly by ILLUSTRATED NEWSPAPERS, LTD., Commonwealth House, 1, New Oxford Street, London, W.C.1. SATURDAY, OCTOBER 17, 1942. Entered as Second-Class Matter at the New York (N.Y.) Post Office, 1903.